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So, You Want to be an Entrepreneur: Potential Factors that Lead to Founder and Startup Success

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So, You Want to be an Entrepreneur?

Potential Factors that Lead to Founder and Startup Success

submitted to

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Table of Contents

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Abstract

Throughout the last two decades, entrepreneurship and startup companies have skyrocketed. Adding significant value to the economy, entrepreneurialism has immense power to spark technological and social change in the world. Given the importance of entrepreneurialism, this paper will use a data-driven approach to discover significant factors that influence founder and startup company success. Founding startups is growing easier and becoming more prominent, yet the failure rates of these companies continue to settle around 90%, leaving many companies without the chance to reach their potential and have their full impact. Using a new dataset I have collected, I analyze company and founder data from startup companies that have been founded by Claremont College's alumni. I tracked all the venture-backable startup companies that have been founded by that Claremont Consortium alumni since 1970. Through this dataset, benchmarking visuals, and regression analysis, I searched for potential influential factors and patterns in this new dataset. A company's revenue, employee count, and founder and employee educational background and occupational experience, all have significant correlations with a startup company's overall success. The paper will demonstrate how in the startup world, bigger is not always better and how quality matters more than quantity. In order to have a successful startup company, founder experience in previous startup companies is vital. Additionally, the paper shows that startup companies should originally focus on revenue in their early stage and then shift their focus to keeping a lean team full of high-quality talent if they want to be successful long-term.

I. Introduction

Since the dotcom boom in the late 1990's and early 2000's, entrepreneurship has been one of the most popular buzz words in the American vernacular. It has become the dream job for many, and the number of entrepreneurs continues to rise every year in the US. Entrepreneurship has become the dream job for many, and the number of entrepreneurs continues to rise every year in the US. Entrepreneurship rates have been steadily increasing in the US for the last 20 years and it is estimated that over 534,000 new business are created every month in the US (Lestraundra, 2021). A study by Kauffman Entrepreneurs shows that as of 2018, 320 adults out of 100,000 are creating a new business each month (Fairlie, 2019). Despite the myriads of studies that show that roughly 90% of startup companies end up failing, people are still flocking to this industry in hopes of being a part of the lucky 10% (Patel, 2015). Entrepreneurship and startup companies have created the new modern day goldrush – a race to the top to become the lucky founder that makes it and finds the gold. Entrepreneurialism is clearly becoming a vital component to occupational progress and technological change in the modern world, and these trends are only showing signs of increasing. Despite the large amount of risk and likely failure involved in startup companies and entrepreneurship, it is easy to understand the appeal. One of the biggest draws to this kind of work is the monetary reward for success – over 60% of all the billionaires in the world achieved their wealth from entrepreneurship and their respective startup companies (Simovic, 2021). For the 10% of companies that do manage to push past failure, there is immense monetary rewards waiting for them. Many of the top market cap companies in the US were all venture-backable startup companies at some point. This possibility of success seems to frequently trump the reality and risks of inevitable failures

in this industry. Additionally, startups further draw people because of the flexibility and creativity involved with these companies. The appeal of working for yourself and the social clout that comes along with being an entrepreneur certainly continues to fuel the gold rush for entrepreneurialism that we are witnessing today.

Entrepreneurialism, however, is not only beneficial to those who pursue it and succeed, but also for the rest of the world that uses the products and services that these companies eventually provide. The world of entrepreneurs helps provide myriads of jobs for the economy, helps create excitement around work and technological progress, relieves immense pressure off of the government to create more jobs, promotes social change, and spurs economic growth and the national income. The successful entrepreneurs of the past in the US have dramatically altered the lives of many by providing new products or offering new services. Startup companies can simplify human life, increase productivity, provide convivences never imaginable, and simply provide further enjoyable consumer products. There is an incredible amount of potential power for entrepreneurs, and many are "frequently thought of as national assets to be cultivated, motivated, and remunerated to the greatest possible extent" (Shobhit, 2021). Entrepreneurship clearly matters for those involved and those in the rest of the world as well. This means that figuring out how to increase this historical 10% success rate also matters. Increasing entrepreneurial success could lead to even further progress, change, and advancement in not just the US, but also the world. Entrepreneurialism matters, and the more successfully humans can create and found startup companies, the better.

Despite the immense importance of entrepreneurship and startup culture, there exists a surprisingly small amount of research on why some of these companies end up being

valued for billions of dollars while others hardly ever make it off the ground and fail. The success of these companies is largely contributed to timing or external factors, but there is still much to be researched as to what makes some founders achieve the billionaire status while others are never able to get their company off the ground. A gap exists in the industry for more data-driven discoveries and decisions.[1] The industry of entrepreneurialism is an extremely important one, and one that has myriads of data points and companies to learn from and use to make more data-driven decisions.

In this paper I use a unique dataset of venture-backable startup companies created by 7C alum to explore the potential factors that influence success or failure for founders and startup companies.[2] Although the paper is only using data on companies founded by alum from these Claremont Colleges, as I will document, they have had unusual and impressive success in the entrepreneurship universe. These colleges are some of the top liberal arts colleges in the US and are primely located within close proximity to LA and Silicon Valley, two hubs for entrepreneurship and innovation. Although these findings should not necessarily dictate how founders found or how startup companies run, they may shed light

[1] First Round Capital, a venture capital firm that specializes in providing seed-stage funding to startup technology companies, shares this sentiment and says that despite venture capitalists constantly telling entrepreneurs to invest in data-driven decisions, entrepreneurs as an industry have done a very poor job of doing it (First Round Capital, 2015).

[2] Additionally, as a consequence of this paper, it will help expose students in the 7C community to the reality of the impressive startup community among the 7C network. Many students will leave the Claremont Colleges and go on to create incredible companies. This paper will help explore this topic to both inspire students with the plethora of alumni out in the world doing it already, while also potentially providing research on how to go do it best within the 7C universe. Finally, the paper will also explore the unique properties of the data set and give a picture of the individual school's ecosystem as well as the entire community startup ecosystem while also benchmarking it against other universities.

on the current state of the industry as a whole and how to best succeed in its environment outside of these colleges as well. I will first briefly discuss the studies in the past on entrepreneurship success and failure. Then, I will go through the creation of my unique data set and summarize some of the interesting findings in the data. Additionally, the paper will also benchmark the 7C colleges against other top universities to put into perspective how applicable the findings from this paper are to the general startup universe. Finally, the paper will use regression analysis to show how factors like employee count, company revenue, college background, and past company experience can all impact startup success. The goal of this thesis is to use regression analysis to observe patterns and relationships for what might lead to success in the startup universe and to explore this new dataset, but not to claim any casual relationships. My results show that a startup company's size does not necessarily matter for them to attain venture funding and grow successful. Rather than company size, the founder's experience and educational background, along with the quality of hired employees appears to matter far more for company success. Additionally, the paper also demonstrates the impressive success of Claremont College alumni founders.

II. Literature Review

With some of the most prominent companies in the world to date coming from startup founders and companies, the search for the secretes to success have been heavily sought after. Until the last decade or so, however, there has not been sufficient data to fully analyze and accurately explore these potential factors and attributes that successful startup companies and founders share. Okrah (2018) explored some of these potential factors for success in startup companies and found that turnover, internal market openness, and

governmental policies were large driving factors for success in the startup world. Turnover, the percentage of return on investment in a year for the company, is an unsurprising impactful factor, considering that how much revenue these startup companies are able to generate is likely a large contributing factor to how long they can stay afloat and how much attention they draw from venture capitalists. This study shows, however, that outside of just being able to generate strong revenues and returns, these startup companies are also at the mercy of the market and government surrounding them – they are reliant on external factors. Market openness not only helps to breed innovation and competition, but it also helps draw more foreign investment opportunities as well, further contributing to the success of startups. Governmental policy is also shown to have an impact on the success of startups in this study, and the countries such as Singapore who have created government policies conducive to startups, have seen immense success in comparison to countries that have not (Okrah, 2018). This finding is similar to many other economists' opinion like Kritikos (2014) who argues that "the benefits to society will be greater in economies where entrepreneurs can operate flexibly, develop their ideas, and reap the rewards." Entrepreneurs will naturally move to environments with governments and policies that are more innovation-friendly whenever they have the opportunity. The Okrah study, however, did not analyze data at the startup company level and rather used proxies such as GDP in order to see the impact external factors had on startups. It did not look at specific company data, and the conclusions were largely external factors that founders cannot do much about. Factors like governmental policy and market timing are clearly shown to be important factors in success, but these variables are largely outside of founder's control. This thesis

will build upon this literature by looking internally at company level data and finding internal contributing factors that founders and companies have more control over.

Along with these external and market related success factors linked with startups, another study done by Bill Gross, the founder of Idealab, found that external market timing may be the most influential factor of all in determining a startup company's success. After analyzing 200 different companies, Gross found that market timing was the single most influential factor and accounted for 42% of the difference between successes and failures among the companies he analyzed (Schroeder, 2019). Despite having the perfect team, the best idea, and a profitable revenue stream, all companies are still subject to their timing, and Gross suggests that market timing is the single most important factor that determines startup success. If the market and consumers are not convinced or ready to need their product or service, then the company will struggle regardless of its potential. The study helps shed some light on way many great companies with all-star teams are still not able to find success – the timing was not right. Furthermore, it helps explain some of the seemingly poorly constructed and founded companies that surprisingly manage to take off – the right product at the right time. Unfortunately, however, market timing is not always something within founder and company control. Additionally, this study only looked at 200 companies, 100 of which Idealab had invested in, which could potentially have led to selection bias and skewed the results. By looking at 700 completely different startup companies over 50 years, my thesis will try to improve upon this study.

Other studies have chosen to focus more on company specific and founder data that leads to success as opposed to these outside market and governmental influences. First Round Capital ran an analysis in 2015 with 300 companies and 600 founders in order to

shed some light on commonalities among their most success startup company investments over a ten-year period (First Round, 2015). The results of their study showed four main factors that seemed to influence success: female founders, age of founders, educational background, and job experience. Companies with at least one female founder had greater success in the study than ones without any – potentially alluding to a larger variable of company diversity as being impactful. Additionally, companies with younger founders who had top undergraduate degrees and past technology experience tended to produce the most success. Entrepreneurialism definitely seems to be an industry where past experience behooves founders, and the more experience the better. Another interesting result that came out from this study was the lack of significance of geographic location. Despite Silicon Valley being the known hub of innovation for the last few decades, First Round's study suggests that geographic location may not matter as much as many assume it does – Silicon Valley is not a necessary location for a startup company to be successful. The observations that came out of this study are more in line with aspects of startups that can be controlled and adjusted for. My thesis will expound on some of these observations from the First Round study and search for more explanations for finding success in such a nebulous industry while also analyzing even more companies and trying to eliminate some of the selection bias from this study.

While most studies focus on highlighting the keys to success for these startups, other research has also been done on the leading contributors to failures. Failory, a startup community of researchers, focusses its research on what it is that leads to startup company failures of the past. Falling in line with Gross's conclusion, Failory also finds that the largest contributing factors to company failure is the lack of cohesion between the product

and the market timing. Based off of myriads of founder failure interviews, the market and product timing along with financial problems and team chemistry contributed the most to noticeable failures (Cerdeira, 2021). Right product, but wrong timing seems to be a common ghost that haunts these failed startups. According to the study, the industry also plays a part in the failure rate of the company. Information, Transportation, and Utility companies tend to have the highest failure rates among all potential startup company industries (Cerdeira, 2021). If startups are considered to be business experiments, testing business and market assumptions as they develop, then these factors seem to contribute the largest to what makes these experiments fail. The study suggests that choosing the right timing and the right industry can be crucial in avoiding failure.

Along with market timing, financial stability, and team chemistry, CBInsights also attributes the failure of many companies to their surrounding competition. After looking at over 300 failed venture capital backed startups, they concluded that competition from other companies lead to roughly 20% of company failures (CB Insights, 2020). These findings point to a key aspect of startup success – innovation and growth. The company may have the right product at the right time with the ideal team, but startups need to continually grow and innovate to not fall stagnant. Just because a startup may quickly be able to generate revenue and attract initial venture funding, does not mean that their path is set. New competition is constantly around the corner and these startups need to adapt and innovate constantly in order to have sustained success. Studying reasons and factors like these for failure and learning from the mistakes of the past, is just as powerful as studying successes and must be considered as well when thinking about how startup companies succeed. Regardless of what the exact contributor to these startup company failures, one thing is

clear: most of them fail. According to Thomas Astebro, empirical evidence for startup companies shows low median returns with extremely high variances. Most of the companies end up failing with almost no returns, while very few succeed (Astebro, 2014). Despite the low probability of success and the risk involved, however, the trends of entrepreneurship only continue to rise.

Obviously, the factors of success and failure for startup companies and entrepreneurs are not a new topic to study, and it has been something people have been curious about for decades given the significance and monetary value of the industry. The majority of studies and research on this topic, however, have been on a small and widely varying data sets of companies. Picking and choosing which companies to look at in an infinite number of options can certainly lead to selection bias. Both studies done by First Round and Idealab included all companies that the venture firms had personally invested in; if these firms had already chosen these companies to invest in then there is certainly selection bias by only analyzing those companies. Additionally, if all startups out there is the scope of focus, there is an infinite amount of data out there to collect and try to apply findings to. Both the Idealab and First Round studies also only included 200 and 300 hundred companies respectively.

The main contribution of my thesis to the literature is to use a novel data set that focusses on one large set of companies and founders all from the 7C network. By focusing in on this specific subset of companies, the study will be able to tap into a finite list of companies that is very representative of the entirety of companies and founders in this 7C universe. By focusing on this one finite set of companies, it could help unlock other keys to why some founders and companies are successful when others are not. Looking at this

dataset which contains a group of likely similar individuals, from similar colleges, with somewhat similar backgrounds, and within proximity to one another, will hopefully help to isolate the ways in which these founders and companies do differ and why some have succeeded and others have failed. Most of these founders are all coming from similar backgrounds and are equally set up for success coming out of these elite college, yet some fail and some succeed. This thesis will use this group to try to unlock some of the reasons for these differences. Additionally, the data set is not only a complete representation of a finite amount of 7C companies, but it also contains more companies and founders than most studies done in the past. With 700 different companies, the data set provides numerous observations to learn from. These findings could then provide new insights for the broader startup world as another source of data in the data-driven decision-making process.

III. Data

In order to create this data set, I started by using the LinkedIn Sales Navigator function in order to search for any individuals with education background from any of the Claremont Colleges (Pomona, Harvey Mudd, Claremont McKenna, Scripps, Pitzer, CGU, and Keck) and with job titles consisting of CEO, Founder, or Co-Founder. Using these founder's LinkedIn pages as well as their startup company's LinkedIn page I then collected variables for the data set listed below. Using these company names, I also search and collected data from Crunchbase for the variables listed below. All the variables in the data set were collected from LinkedIn and Crunchbase and then entered manually into the tool Airtable. Airtable was used to collect the information and for some minimal data cleaning purposes.

The data set is a compilation of company and founder information on all 7C founded companies and founders. The data set has also been edited to only include startup companies that are potentially venture-backable. A list of the full set of variables and their source and description are listed in Appendix A.

Despite the completeness of the data collection process, there are some potential problems. Because this data was manually collected in January 2021, it is not automatically updating, and the data found on LinkedIn and Crunchbase could be outdated. These two sources could also have their own errors and may not be completely accurate. In this manual creation there was also subjectivity involved in my determination of what is and is not a venture-backable company. This determination was made based on the past experience of the founder, and the type of company it was and what type of product or service they provided. Other potential problems could be that it still is an incomplete data set. Although it currently contains all 7C companies according to LinkedIn, there still could be some missing gaps in the specific 7C network – it is constrained to what LinkedIn has listed.

This data set shows that despite being a small consortium of all liberal arts colleges, the Claremont Colleges are clearly a hub for entrepreneurialism, business, and startup companies. As shown in Figure 1, the data set contains almost 700 different companies dating all the way back to 1977 that have been founded by 7C alumni. Since 2011, over 35 companies venture-backable companies have been founded by these alumni every single year. Pomona College, Harvey Mudd College, and Claremont McKenna College are leading the way with all over 100 companies founded throughout the schools' existence (Table 1). Table 1 shows that the venture capital dollars raised along with the acquisition

dollars earned by companies in this data set accumulate to more than $31B and $12B respectively. Employing over 30,000 workers and over 500 7C alum employees as well, these companies make a compelling case for the Claremont Consortium to be considered a top tier landing spot for any student interested in startup and entrepreneurialism. The data set contains massive companies such as Cisco (current market cap of $206B), Avalara (with an IPO $1.4B), Cruise (acquired by GM for $1.2B and raised $7.3B), Juul (raised over $15B) and GitHub (acquired by Microsoft for $7.5B).

Overall, the Claremont universe has over 230 different companies that have had some sort of venture raised capital, and over 190 companies that have raised over $1M in venture capital dollars (Figure 4). Over 100 of these companies have been acquired over the years and 9 of them have gone public and IPO'd. With almost 500 founders in the data set, these founders are comprised of almost 100 female founders, almost 50 student founders, and over 40 founders with known graduate degrees. The companies also have diversity in industry and geographic location. With companies in over 20 different industries, the Claremont Consortium seems to particularly specialize in E-Commerce, Biotech and FinTech companies (Figure 5). Over 60 companies in this data set have been founded outside of the United States, but among the over 600 companies founded with the States, San Francisco, Los Angeles, and New York are among the leading cities (Figure 6).

Claremont McKenna College:

Figures 8, 9, and 10 show the data on companies founded by Claremont McKenna College (CMC) alum. Driven by one of the most impressive companies in the data set (Cruise), CMC alum have founded over 100 companies and raised almost $8.9B in venture capital dollars. Since 2013 they have consistently averaged over 5 companies founded a

year, and all of these companies have led to over $2.3B in acquisition exit dollars. The last four years the school has produced double digit amounts of venture-backable companies. These CMC companies combine for the second largest venture capital dollars raised of any of the other 7C's, and they also have the largest amount of IPO's in the data set with TrueCar, Avalara, and Limeade. They also have the third most female founders of any other 7C college with 14. Even if you take Cruise out of the data set, CMC will still have almost $2B in raised capital, the third highest in the 7C's. Geographically, CMC founded companies are the most heavily concentrated in the Bay Area, Los Angeles, and New York. Additionally, E-Commerce and Fintech companies are the most popular industries among CMC founded companies, however they have an incredibly diverse array of industry representation. While Cruise is certainly the most impressive company from CMC, they also have 13 other companies that have raised between $1-$5M in venture capital and 9 others that have raised $20-$50M.

Harvey Mudd College

Figures 11, 12, and 13 display data on the Harvey Mudd College (HMC) alum. HMC drives over 75% of the total 7C's acquisition exit dollars with over $9B in acquisition – they have had 8 companies be acquired for over $100M. Additionally, the college is second in total companies founded with over 150 and second in total acquired companies with over 30. Despite only being the third largest college in terms of venture capital dollars raised, HMC still has over 55 companies that have acquired over $1M in venture capital and 10 companies that have acquired between $10-20M. HMC continues to produce more companies every year and since 2014, they have had double digit numbers of companies

founded. HMC's breakdown of venture dollars is an even spread between Helix, GitHub, and Lanzatech all accounting for double-digit percentages of the school's total venture capital. GitHub dominates all other companies in this dataset though with by far the largest acquisition dollar amount by Microsoft for $7.5B. These HMC companies are primarily located in the Bay Area, Los Angeles, San Diego; and their largest industries of expertise are Biotech and Security, Infrastructure, and Dev Ops. Additionally, HMC has the most amount of undergraduate founded companies with 17 and has two impressive IPO companies with Extreme Networks and MaxLinear.

Pomona College

Figures 14, 15, and 16 shows that Pomona College leads all other 7C Colleges in total companies founded with over 240 and they also lead the way in number of founders with over 160, 29 of which are female founders. Pomona also boasts the highest amount of capital dollars raised in total with over $18B. Since 2010, Pomona alum have founded at least 10 new companies every single year, and these companies have raised over $18B in venture capital. Juul, Samumed, and Zwift are the three largest companies in Pomona's universe in capital dollars raised. Pomona also has 27 total companies that have acquired between $1-$20M in venture capital. Similar to CMC, Pomona's 240+ companies are concentrated in the Bay Area, Los Angeles, and New York. Health & Wellness, Fintech, and Media & Advertising are the largest three industries for Pomona. Within the Pomona universe there have also been two major acquisitions for over $100M – PGP Corp and Velocify.

Pitzer & Scripps College

Figures 17, 18, and 19 show how these two schools combined contribute over $500M in venture capital dollars raised as well as over 10 companies that have individually raised over $1M in capital. Together, their alumni have founded over 90 companies. DAQRI, founded by a Scripps alum, is the largest contributor for venture dollars; while Aduro Biotech, a Pitzer founded company, is the largest contributor for exit dollars. E-Commerce and Information Tech & Data Analytics are the two largest industries for these schools, and the companies are primarily located in the Bay Area and Los Angeles. Pitzer has a strong New York presence and has also had two impressive IPO's – Marchex and Aduro Biotech. Scripps also has two companies, Hixme and Velocidi, that have acquired between $10-$50M in venture capital.

Claremont Graduate & Keck University

Figures 20, 21, and 22 show that combined, the graduate schools have over 90 companies founded and over $450M in venture capital dollars. In total, both schools have 19 companies with over $1M in venture capital, and Keck has 2 companies that have raised over $100M in venture capital including Nurep with over $120M. Homology Medicines and Nurep are driving the majority of the venture dollars for these two schools. The companies for these schools are primarily located in the Bay Area and Los Angeles with a strong international presence as well. CGU specializes in Info Technology & Data Analytics as well as Healthcare & Wellness; Keck specializes in Biotech. Keck and CGU have also had two large IPOs with Cisco and Homology Medicines.

Comparing the 7C's with Top US Universities

While all of the 7C data in this dataset is impressive on its own merit, the data is even more impressive when you put it in comparison with the other top schools across the country. In order to benchmark the Claremont Consortium data against other top universities I used the Pitchbook 2019 report to obtain venture capital amounts from other universities. This report tracked venture capital dollars raised by universities from the time period of January 1st 2006 – July 1st 2019 (Pitchbook, 2019). Using this report data, I then benchmarked the total Claremont Consortium numbers and ranked these top universities to put into perspective how impressive this 7C universe is. Tables 2 and 3 show that not only is the Claremont Consortium ranked 4th in raw capital raised during this 12-year period, but they are also ranked 1st by a magnitude of more than 3 in capital raised per company.

IV. Empirical Analysis

Using the dataset compiled, this paper explores four types of cross sectional OLS regressions. All four of the regressions will use the same control variables but explore different outcome variables labeled Y_i. The regression framework is the same in each regression, but with different outcome variable that try to measure a company's success.

Regression Framework:

$$Y_i = \beta_0 + \beta_1 EmployeeCount_i + \beta_2 7CEmployeeCount_i + \beta_3 Revenue_i + \beta_4 StudentFounder_i + \beta_5 FemaleFounder_i + \beta_6 SerialFounder_i + \beta_7 GraduateFounder_i + \beta_8 YearFounded_i + \beta_9 School_i + \beta_{10} Industry_i + \beta_{11} Region_i + u_i$$

The first regression will explore the contributing factors to the probability of companies being able to raise venture capital or not as a proxy for company success. A variable called

Venture Dollars was created as a dummy for whether or not a company has ever raised any venture capital in its history, and the regression will use the *VentureDollars* variable as the outcome variable in the first regression. This regression will try to uncover what influences the probability of companies being able to raise funding. The second regression will look at the contributing factors to the amount of venture capital that all companies have raised as another potential proxy for success. The outcome variable in this regression will be the amount of capital that each company has raised, and the regression will use all of the observations. The regression analysis will help shed light on potential contributing factors for why some companies are able to raise more venture capital dollars than other companies. The third regression is similar to this regression but will only look at a subsection of the companies conditional on raising a positive amount of capital. This will explore the factors, conditional on a company raising any amount of capital, that contribute to some companies raising larger amounts than others. The final regression will look at contributing factors to what influences the lifespan of companies. Failure and success rates are an important variable to track in startup companies due to the excessive amounts of failed companies. I created a variable called *5YearsAlive* that is a dummy variable for whether the company managed to stay open for 5 years or more. This regression will use this variable as the outcome variable and try to uncover what influences the probability of companies being able to stay in business longer than the typical company.

Although there may be slight endogeneity involved specifically between the capital raised outcome variables and the employee count control variables, it is not a huge concern. The amount of venture capital that a startup company raises could theoretically allow them to hire and employee more employees leading to some reverse causality issues. Most

startup companies, however, put their venture dollars to use in the form of R&D and product/service development rather than simply hiring more employees, so this is not a major concern with this study. Furthermore, I do not claim any casual relationships between the variables of interest in this thesis. Instead, my aim in this thesis is more modest and simply to explore the correlations and relationships among variables to help explain some of the potential reasons for why certain companies experience more success and go on to raise more capital, generate positive revenues, get acquired, or even go public. Table 4 shows the four main regression results that will be discussed further in the results section of the paper.

IV. Results

Bigger Isn't Always Better: Revenue, Employee Count, & 7C Employees

"Go big or go home." We've all heard these words – it's been codified as truth in our subconscious. Bigger houses, bigger paychecks, bigger cars, a bigger lawn than your neighbors – bigger is always better. If you are looking to raise venture capital, however, bigger may not always be better when it comes to company size. The quality and network affinity of the hired employees appears to matter much more than bigger number of employees.

Using a combination of company employee count, and company revenue as a proxy for company's size, I peeked under the hood to see if bigger is actually better. Do bigger companies with more employees and higher revenues lead to more attraction of venture dollars? My initial hypothesis was that the bigger the company was, the more likely it would be to attract and raise more venture capital. A company with a large number of

employees and a healthy amount of revenue would seemingly have an easier time acquiring more venture dollars from funders. While within the startup world many companies may punt on focusing on revenue, one would think that a startup with a strong employee count and healthy revenues would be an easier sell to potential investors. The data, however, suggests an interesting story.

To first begin looking at what factors contribute to startup companies' success, I looked at what variables appear to be significantly correlated with the probability of whether a company acquired venture dollars. One of the essential goals of any startup is to obtain venture capital funding, and this funding is often a key to success for the startup company to be able to continue and eventually become profitable. Because of this, in Column 1 of Table 4, I regressed independent variables against a dependent variable of whether the company has ever attained venture dollars as a proxy for startup success.

While controlling for the different industries of the startup companies, the geographical locations, and the biographical founder information, this regression helps isolate the potential impact that Employee Count, 7C Employee Count, and Company Revenue has on whether a company is able to attain startup founding. Initially in this regression, Company Revenue is the only factor of those three company specific variables that is statistically significant at the 10% level, while the impact of Employees and 7C Employees seems negligible. This matched my initial hypothesis because whether or not a startup is able to start generating profitable revenue is a strong initial signal to potential investors. This regression, however, does not allow these variables to impact to magnitude of venture dollars raised. While revenue may be statistically significant in the probability of whether funding is raised or not, I also wanted to see what variables influenced the

amount of venture dollars that were raised which led to the regression in Column 3 of Table 4. Although raising venture dollars is a strong sign for a successful startup, the amount of capital raised also matters in company success. There is a large difference between a company that raises a couple hundred thousand and a couple million. Company success does not just look like simply raising capital – the amount also matters. Using the same set of control variables, but this time regressing on the amount of venture dollars that companies raised and conditional on the companies that raised any amount of capital at all, this regression showed more interesting results.

Once I conditioned on the 243 companies that had raised capital in the data, company revenue clearly is not significantly correlated with larger amount of venture capital. For a variable that intuitively would seem extremely correlated with generating more venture dollars and that was significantly correlated with objectively raising capital, company revenue does not seem to have an impact on the amount of venture raised. This could be due to the fact that early seed startup companies care far more about growth than positive revenue and because many of the companies tend to use venture dollars to fund their company rather than internally generated revenue in the beginning. Additionally, this could be because the potential founders care more about the founding team and the company's mission, product, and future growth rather than its current positive revenue. Funding invested in these companies appears to be based more on belief in future growth rather than current generating revenue. While company revenue is likely one of the best indications of whether or not the company will be able to get their foot in the door and raise initial capital, it does not appear to help the company generate more venture down the road.

Company revenue may matter at the beginning of a startup's tenure, but if the company wants to continue to grow and raise capital, other variables appear to matter more.

The strong and statistically significant negative correlation between employee count and venture dollars is a particularly strange observation. This would appear to suggest that the larger a company is and the more employees it has on its payroll, the harder it is to attain venture dollars. Since we are controlling for company revenue as well, this could be because founders are likely more apprehensive to invest in companies with a larger number of employees on their payroll if their revenue is not also proportionally greater as well – too many mouths to feed without ample food. Additionally, this could also be because more employees are detrimental to early-stage startup companies which need to be lean and adapt quickly as they begin to develop their company and product or service. Larger employee numbers could potentially be a hinderance to these startups as it could slow down growth and hinder swift adaptation.

The most surprising observation from Column 3 of Table 4 is that despite overall employee count having a negative correlation with venture dollars, 7C employee count appears to have a strong positive and statistically significant correlation with venture dollars. This correlation could point to 7C alum's particular network to the VC community as well as their talent and skill set. The 7C's certainly are known for attracting top-notch students and the colleges are continuously ranked among the top universities. It certainly suggests that the Claremont Colleges produces successful alum and startup employees. As opposed to having a large number of employees that could lead to too many mouths to feed and slow down adaptability and growth, having a large concentration of employees from top schools appears to lead to a healthier amount of venture capital funding. This finding

falls in line with First Round Capital's previous analysis that showed how import strong education backgrounds are for founders and employees at successful startups.

Company revenue's insignificance, employee count's negative correlations, and 7C employee count's positive correlation continue similar trends when we consider another type of startup company success. Outside of trying to raise venture capital dollars, another obviously goal of any startup company is to simply stay alive and beat the 90% average failure rate (Patel, 2015). While using the same control variables but regressing them on whether the company stayed alive for at least 5 years without having to shut its doors, similar results emerged in Column 4 of Table 4.

Again, company revenue does not appear to be correlated with a company's probabilistic success in staying alive for at least 5 years. 7C employee count, however, again is strongly positively correlated with a company's probability of success in staying alive while overall employee count is negatively correlated with the probability of a company staying alive for at least 5 years. The trends of these three variables continues if the control variables are regressed on whether or not a company has been alive for at least 10 years. Between all these regressions the same story holds – bigger might not always be better.

Company revenue matters, but only to a certain extent. While it might be an initial attraction to founders to have high revenues, if a startup company wants to continue to earn more venture dollars, have sustained success, and keep their doors open to beat the 10% odds, company revenue shows to matter less and less. Additionally, having a smaller and leaner company size is potentially far more beneficial and conducive to company success.

Quality matters more than quantity, and the quality of the employees and their affinity network will pay dividends for a company's success.

In conclusion, bigger just might not always be better to acquire more venture capital dollars. Better might look like keeping your startup as nice and lean as possible while stacking it with A-class talent – talent like you find at the 7C's and other top universities. A company's size (their revenue and employee count) may not matter as much as people think – in order to have a successful startup company, who the founder is and who the employees are appears to matter much more than how much revenue or how many employees the company has.

Quality Over Quantity: Serial Founders & College Background

Few would argue that creating your own company is one of the most challenging career ventures somebody could set out on – incredibly rewarding, but still very challenging. Because of the nature of the difficulty of creating a success startup company, research shows that who the founder is has significant impact on how successful the company will become. In the previous section, the regressions helped highlight the significance of employee background and their previous educational experience. Similarly, demographic information on the founders also appears to be statistically significantly correlated with company success in the previous regressions. Column 1 of Table 4 further shows that student founders of companies are far less likely to obtain venture funding as opposed to founders who have already graduated. This result should not come as a surprise. First Round Capital in their analysis showed in depth how much a founder's career experience and background mattered for startup success. Their analysis showed how

founders coming from top companies and founders that had graduated from top universities often found the most success. In a similar vein, college students who have not had the career experience appear to struggle obtaining venture capital and being a student founder appears to lower the company's probability of obtaining venture capital by 15%. Across all the different regressions, student founder continues to be a negative factor that lowers the probability of obtaining venture dollars and the company's lifespan.

Another variable that seems to have a significant impact on a company's ability to raise more venture capital dollars is whether the founder is a serial founder. This variable might be the best proxy for past experience among founders because this variable controls for if the specific founder has founded a company before. Conditional on all of the companies that have raised capital in Column 3 of Table 4, having a company with a serial founder appears to significantly increase the amount of capital raised at the 5% level. Again, this finding is along similar lines to what First Round Capital found in their analysis – past career and educational backgrounds do indeed significantly contribute to founder success. Contrary to the results found in their analysis, however, none of these regressions point to female founders having a significant effect on company success. In all of the regressions, companies with a female founder are not shown to have a higher probability of raising capital or staying alive longer nor are they shown to significantly affect the amount of capital raised. According to this dataset, whether the founder is a male and female does not significantly impact the company's success.

Another biographical founder variable that does appear to impact the company's success in raising venture dollars and staying alive for longer than 5 years is the school that the founder attended. Using all the same control variables, but focusing in on the school

specific impact, a few schools rise to the top in terms of venture funding success in Column 1 of Table 4. Both Claremont McKenna and Harvey Mudd College are shown to have strong statistical significance in increasing the probability of obtaining venture funds. Both these schools are the only two schools in the dataset shown to be statistically significant in increasing the probability of obtaining venture. Harvey Mudd and CMC are known to be engineer, finance, and econ powerhouses, and these schools seem to leave an impact on the alumni's future success in entrepreneurship.

In conclusion, who you are as a founder can have significant impacts on how successful your startup company is. Past career experience and in particular experience with past startup companies can significantly increase the probability of raising capital as well as the amount of capital raised. Additionally, inexperienced student founders lead to a lower probability of obtaining venture funds. Past educational backgrounds also has importance, and the school that the founder comes from appears to affect the company's potential success as well. Overall, the quality and experience of the founder is a very important factor to startup success.

Discussion

Overall, throughout all the regressions, similar patterns and stories emerged. In the initial stages of a startup company, having higher revenues seems to be correlated with a higher likelihood of obtaining funding. The company's revenue appears to be a significant factor in the initial raising of venture funding, and this is likely due to the fact that it serves as a signal to potential investors that the company has a profitable and potentially successful business model and product or service. After the initial capturing of some amount of funding, however, revenue appears to become insignificant in how it impacts

the amount of funding raised and the lifespan of the company. Conditional on companies that have raised venture capital, revenue does not significantly impact the amount to which the companies raise. Additionally, a company's revenue does not significantly impact the extent to which the company remains alive with its doors open. This observation suggests that having a startup with profitable revenues may help in the initial phase of a startup, but it is certainly not the golden ticket if the company wants to have sustained success, raise funding down the road, and continue to avoid company closure.

A company's employee count does, however, appear to have potential impacts on a company's ability to raise funding and keep its business alive longer. While the employee count does not appear to be statistically correlated with a company's probability of raising funding or not; conditional on a company raising capital, it does have a negative impact on how much venture capital is raised and the probability of staying alive. Higher employee counts lead to less funding raised conditional on raising funding and also leads to a higher probability of company closure. This observation suggests that startup companies may be at a disadvantage if they grow too fast. If a startup company wants to have sustained success, having a leaner company size may serve them better so that they can adapt quicker and be more agile as a company.

The company's count of 7C alumni employees appears to work in the opposite way to raw employee counts. Although the amount of 7C employees at a company does not significantly impact the probability of raising funding, higher 7C employee counts does appear to be strongly positively correlated with the amount of funding conditional on the company raising funding. This observation suggests that the quality of employees you hire,

and their affinity network and education background definitely matter; especially in startup companies where the overall employee count is generally smaller.

Of the top 15 companies that have hired the most 7C employees, there are 10 companies that remain private, 3 companies that have reached unicorn status at one point, 2 companies that have gone public with over $420B market caps in total, 2 companies that got acquired for over $8.5B in total, and only one company that eventually closed (Table 5). In total these 15 companies also raised over $23.5B in venture capital. 7C employees and quality employees from strong universities certainly seem to have important impacts on startup success.

Across all results, founder career and educational background along with past venture experience also showed to be impactful. In every regression being a student founder showed to negatively impact the probability and the amount of raising capital while also increasing the probability of company failure. While being an experienced student founder showed adverse results, the experience gained from these student founders is important. While student founders lead to negative company outcomes, being an experienced serial founder positively impacted the amount of venture dollars that companies raised. These observations suggest that past experience with startup companies is vital if founders want to increase their chances of success. So, while student founders may not experience the most success, these experiences as students are still important in contributing to experience that could lead to greater success down the road. Two of the most impressive companies in the dataset, Juul and Pax Labs, both came from a serial founder and overall, eight different companies that were founded by serial founders all

raised at least over $1M and combined for raising over $15.6B in venture capital funding (Table 6).

While experience clearly matters for founder success, their educational background also seems to have an impact on their probability of raising venture capital. Claremont McKenna College and Harvey Mudd both lead the charge for the schools that lead to the highest probability of raising capital. These results suggest that where a founder goes to school does have an impact on their probability and likelihood of raising venture in the future. This could potentially be attributed to the fact that some schools lead to better networks and affinity groups to draw on for funding. Additionally, the schools that emphasize engineering, finance, and economic majors seem to lead to the most entrepreneurial success. Educational background, connections and networks matter heavily in venture capital and the network and experience a potential founder acquires from their college could seriously impact their future startup company.

Based off of these results, founders of future startups need to understand the importance that experience has on success. For many founders, it takes numerous tries at entrepreneurialism before achieving success – the more experiences at starting companies the better. Even though the first time an undergraduate founder may not notice immediate success, those unsuccessful experiences help lead to future success. Additionally, the founder's choice of educational background matters. Thinking critically about where to attend undergrade or graduate colleges can have lasting impacts on a future founder's affinity group, network, and eventual entrepreneurial success. Furthermore, these results should also influence the way that founders approach the importance of revenue generation in their startup companies. Revenue is important in the beginning stages for startup

companies in order to gain traction, fund innovation, and spark publicity and excitement among funders. Once venture capital funding has been acquired, however, founders need to think critically about how to continue to adapt. Rather than continuing to focus on revenue and company size, the data shows that focusing more on keeping the company lean and developing quality employees pays more dividends in the future. Founders should continuously gain experiences, grow their networks, build early revenue, choose their employees wisely, and keep their company lean.

V. Conclusion

The Claremont Colleges may be a small selection of liberal arts colleges that are relatively unknown in the space of venture capital and startup entrepreneurship, however, this paper sheds some light on the impressiveness of this consortium. With 700 companies tracked over 40+ years, $31B in total venture capital, $12.6B in acquisitional dollars, 9 public companies, 110 acquired companies, and an incredibly diverse array of industries, founders, and locations, this consortium is a relatively unknown hub of entrepreneurship. The Consortium as a whole ranks 4th across all universities in the U.S. on a raw venture capital basis and 1st on a venture capital per company basis. Although this study may use data from a small subsection of the overall startup universe, I have gathered very rich and complete data on this impressive 7C universe, and I firmly believe that the takeaways from these studies are largely applicable to the broader startup world because of the prevalence of this Consortium.

Potential avenues for further research would be to analyze what the ideal amount, if any, of attained venture capital funds is along with the impact of female founders. Little

research currently exists that tries to quantify the ideal amount of venture capital dollars for startup companies that want to go public and get acquired down the road; a study to try to find what that amount might be could lead to impactful results. Furthermore, numerous studies in the past have highlighted the impact that female founders can have on startup companies, and a deeper dive into the female founded companies in this dataset could uncover interesting results. Additionally, although this paper looked at the different impacts schools among the 7C Colleges have, further research on what universities throughout the U.S. lead to the most entrepreneurial success and then comparing them to the Claremont Consortium, could give a more complete picture of how colleges lead to entrepreneurial success. All of these arears of further research could continue to help uncover this mysterious world of entrepreneurialism.

Despite the startup world and the entrepreneurship career seeming somewhat nebulous and incredibly risky and unpredictable, it does seem like there are some generally applicable keys to follow that tend to lead to success in this space that can be taken away from this thesis. In the beginning stages of any startup company, being able to generate strong and profitable revenues seems to be a strong indicator of likely being able to obtain venture capital funding. Startups thrive and often times largely function because of their generated venture capital, so making revenue a company goal in the early stages of a startup might pay dividends down the road. If a company wants to have sustained success though and push past the first line of venture funding, other factors come into play. Although a company's revenue may help generate the initial venture capital funds, it does not appear to positively influence further generation of capital or the company's tenure span. Likewise, a company employee count and size, actually shows to be detrimental in a

company's success. In the later stages of startup companies, revenue and company size do not appear to matter and could be more harmful than helpful. In order to have a longer-term successful startup company, quality starts to matter far more than quantity. At the end of the day, funders want to invest in people they trust, and the type of founder and the types of company employees matter immensely. Factors like previous startup experience and strong educational backgrounds appear to positively increase the likelihood of success for startup companies. Bigger is not always better, and quality over quantity seem to be two keys to keep in mind if you want to be a successful entrepreneur.

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VII. Tables

Table 1. School Specific Descriptive Statistics

Variables	CGU	CMC	HMC	Keck	PI	PO	SC	Total
Total Companies	64	108	159	29	71	247	18	696
Private Companies	30	79	99	15	40	116	13	392
Closed Companies	21	13	28	11	22	88	5	188
Acquired Companies	13	15	31	2	7	43	0	111
Public Companies	1	3	2	1	2	0	0	9
Founders	43	83	116	26	54	163	16	501
Female Founders	9	15	12	7	11	29	16	99
Student Founders	1	2	18	4	7	12	3	47
Funding Rounds	32	174	250	24	35	236	13	764
Total Capital Raised	$116M	$8.9B	$2.6B	$354M	$279M	$18.3B	$333M	$31B
Acquisition Dollars	$0	$2.3B	$9.8B	$0	$0	$569M	$0	$12B
Money Raised at IPOs	$224M	$350M	$211M	$144M	$145M	$0	$0	$1B
Total Public Market Cap	$206B	$13B	$3B	$446M	$118M	$0	$0	$223B
Employees	92636	12770	11735	686	647	6626	125	125225
7C Employees	67	115	152	12	46	153	11	556
Companies w/ > $1M Capital	15	43	62	5	7	64	4	200
Companies w/ > $10M Capital	4	23	42	4	5	32	4	114
Companies w/ > $100M Capital	0	4	9	2	1	8	1	25

Table 2. Benchmarking: Top Schools by Capital Raised

University	Entrepreneurs	Companies	Capital ($B)	Rank
Claremont Colleges	202	189	$25.99	4
Stanford University	1288	1114	$37.82	1
Harvard University	987	882	$32.65	2
University of California, Berkeley	1235	1103	$28.61	3
MIT	1012	881	$25.56	5
Cornell University	796	735	$23.86	6
University of Pennsylvania	910	828	$17.83	7
University of Michigan	745	670	$15.22	8
Brown University	481	441	$13.95	9
Princeton University	527	494	$13.66	10

Table 3. Benchmarking: Top Schools by Capital per Company

University	Entrepreneurs	Companies	Capital ($B)	Capital per Company ($B)	Rank
Claremont Colleges	202	189	$25.99	$0.138	1
Harvard University	987	882	$32.65	$0.037	3
Stanford University	1288	1114	$37.82	$0.034	4
UCSB	274	256	$8.51	$0.033	5
Cornell University	796	735	$23.86	$0.032	6
Brown University	481	441	$13.95	$0.032	7
University of Waterloo	433	339	$10.63	$0.031	8
Boston University	327	315	$9.57	$0.030	9
USC	463	424	$12.39	$0.029	10

Table 4. Regression Results

Variables	Regression 1 (Venture Dollars Y/N)	Regression 2 (Total Capital Raised) *In Thousands	Regression 3 (Total Capital Raised: Excluding Companies w/o Capital) *In Thousands	Regression 4 (Alive 5 Years Y/N)
Employees	.000004 (.000008)	**-52.15** **(10.46)******	**-103.57** **(25.09)******	**-.000025** **(.0000068)******
7C Employees	.012 (.016)	**158000** **(21400)******	**300000** **(55700)******	**.075** **(.014)******
Revenue *In Thousands	**.0000005** **(.000000309)***	**1.2** **(.4)****	.31 (1.23)	.0000002 (.0000003)
Student Founder Dummy	**-.16** **(.075)****	-121000 (100000)	-438000 (377000)	-.103 (.065)
Female Founder Dummy	-.058 (.057)	29300 (75600)	-46500 (257000)	-.013 (.049)
Serial Founder Dummy	.11 (.12)	**852000** **(156000)******	**1240000** **(430000)****	-.141 (.102)
Graduate School Founder Dummy	.049 (.079)	61300 (104000)	128000 (268000)	.0505 (.068)
Year Founded	.00025 (.00023)	-62.68 (303.75)	3995.9 (13700)	-.000055 (.0002)
Claremont McKenna Dummy	**.21** **(.082)*****	69700 (108000)	316000 (357000)	-.036 (.0704)
Harvey Mudd Dummy	**.21** **(.079)*****	-31900 (104000)	75000 (348000)	-.075 (.068)
Pitzer Dummy	-.052 (.089)	82500 (118000)	604000 (493000)	-.12 (.077)
Pomona Dummy	.11 (.073)	139000 (95700)	515000 (336000)	-.17 (.063)
Scripps Dummy	.21 (.14)	98200 (18400)	539000 (575000)	-.098 (.12)
Keck Dummy	.078 (.12)	94800 (154000)	538000 (519000)	-.16 (.101)
CGU Dummy	Excluded	Excluded	Excluded	Excluded
Industry Dummies	Included	Included	Included	Included
Region Dummies	Included	Included	Included	Included
Number of Observations	696	696	243	696
R-Squared	0.1826	0.2195	0.3937	0.1988
F Stat	1.54	1.94	1.84	1.71

Table 5. Companies w/ the Most 7C Employees

Company Name	Status	Number of 7C Employees	Capital Raised	Acquisition Dollars
Cisco	Public	34	$2,500,000	
Cruise	Acquired	17	$736,800,000	$1,250,000,000
Mavenlink	Private	7	$111,500,000	
LaunchDarkly	Private	6	$130,300,000	
GovPredict	Private	6	$240,000	
DreamHost	Private	6	$48,000,000	
Apptentive	Private	6	$17,515,000	
Playco	Private	4	$100,000,000	
NOCD	Private	4	$17,000,000	
Juul	Private	4	$15,100,000,000	
Glass Media	Private	4	$60,000	
GitHub	Acquired	4	$350,000,000	$7,500,000,000
Doximity	Private	4	$81,800,000	
Clef	Closed	4	$3,100,000	
TrueCar	Public	3	$340,400,000	

Table 6. Serial Founded Companies

Company Name	Capital Raised
Juul	$15,100,000,000
PAX Labs	$541,700,000
Enlibrium	$15,000,000
Lucid Sight	$11,000,000
Adrenergics	$10,000,000
AdColony	$5,000,000
Snapette	$1,500,000
RewardPod	$1,000,000
Splore	$380,000

VIII. Figures

Figure 1. 7C: Total Companies Founded by Year

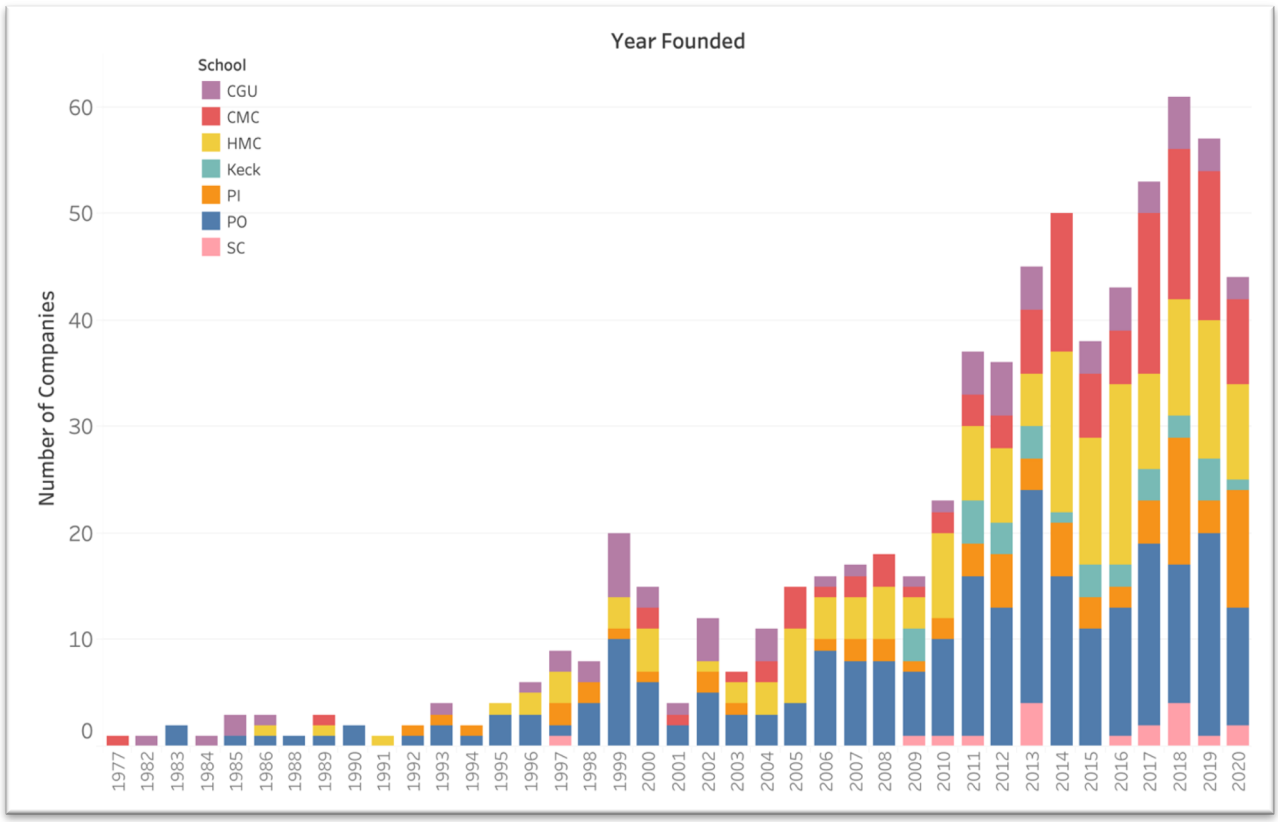


Figure 2. 7C: Total Exit Dollars by Exit Year

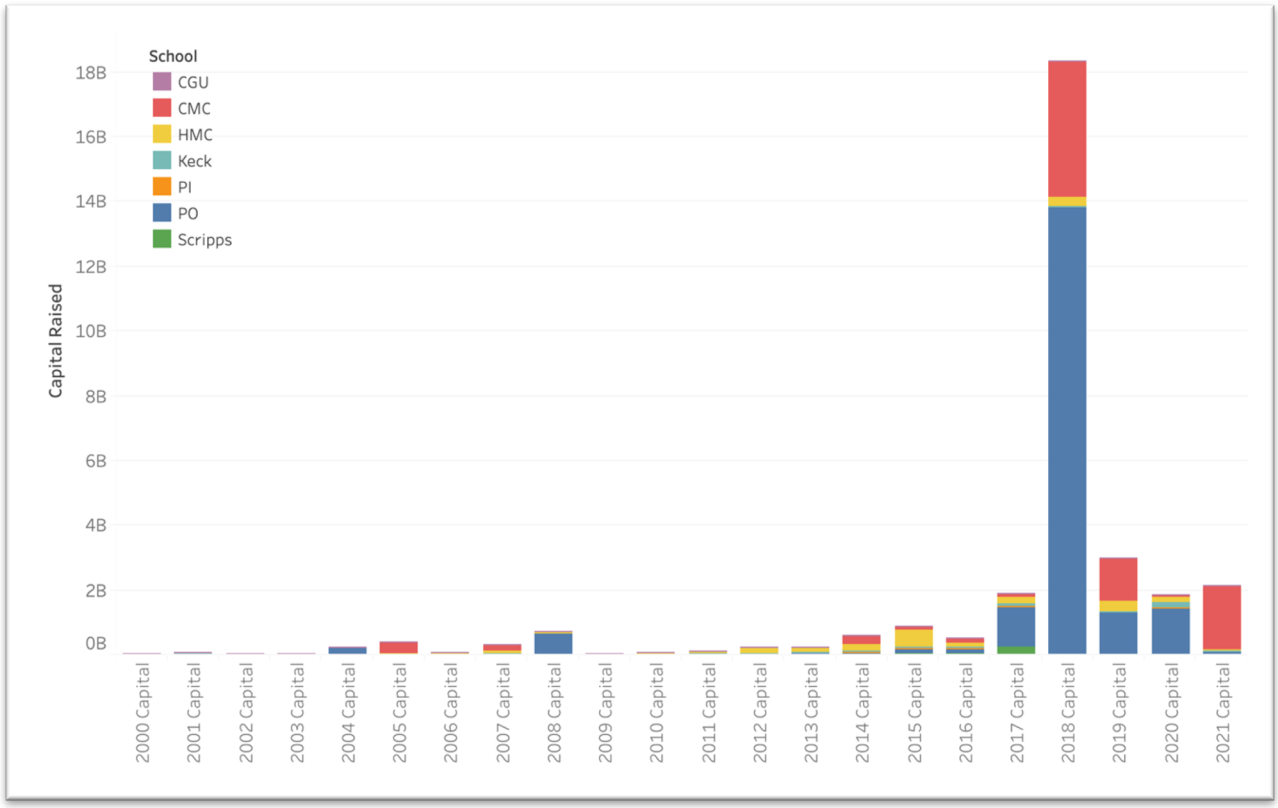


Figure 3. 7C: Total Acquisition Dollars by Exit Year

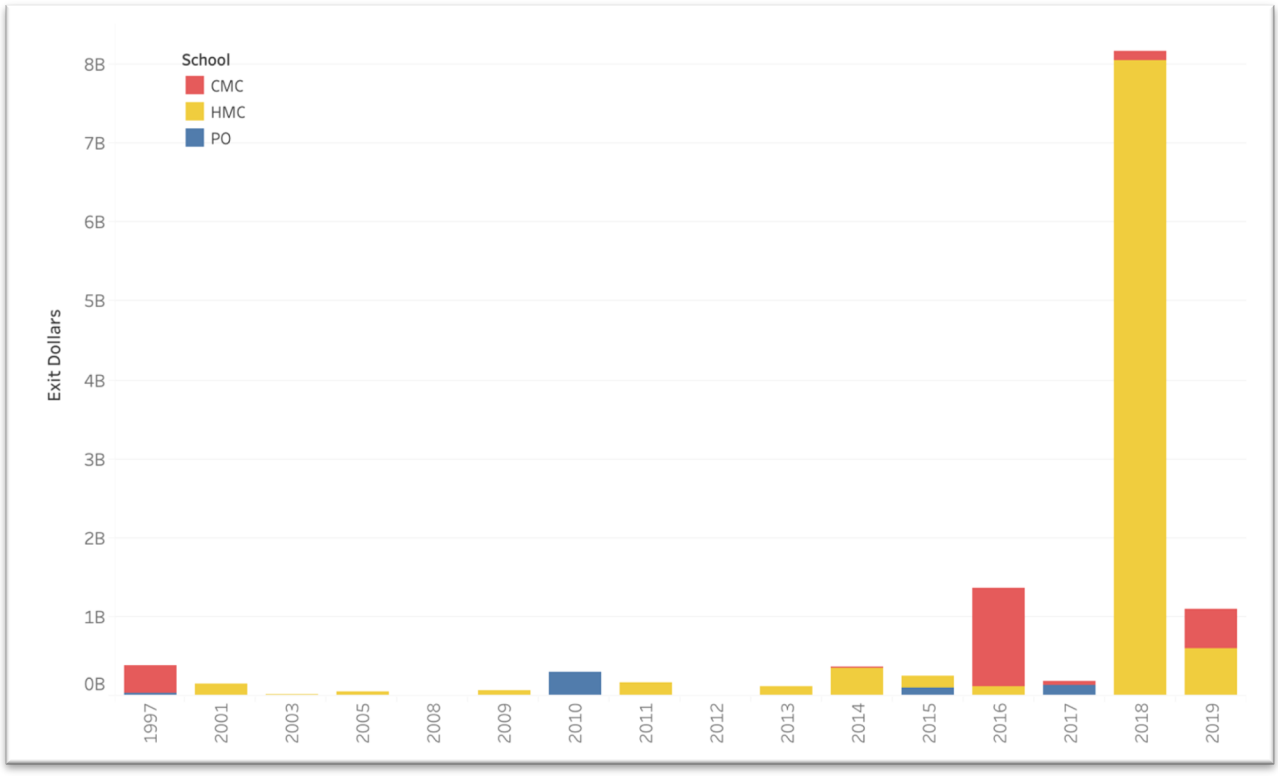


Figure 4. 7C: Current Number of Private Companies w/ Venture Capital of $1M+

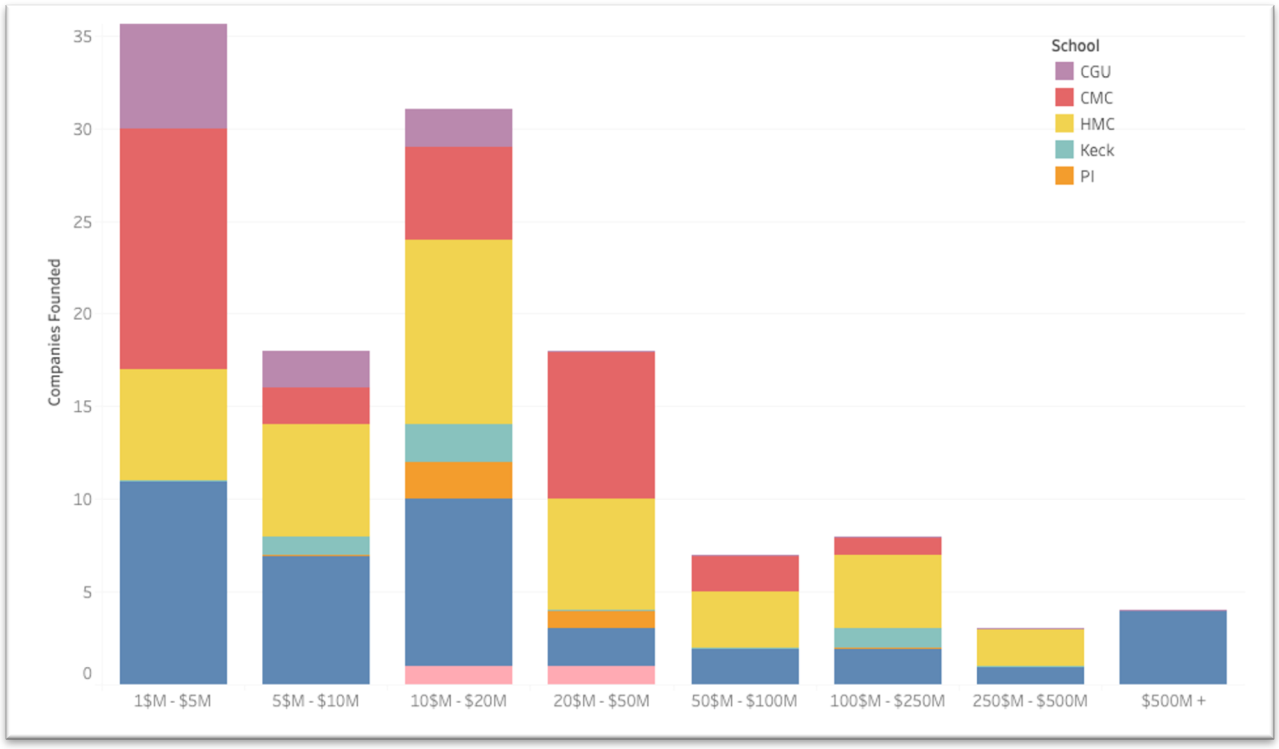


Figure 5. 7C: Number of Companies by Industry

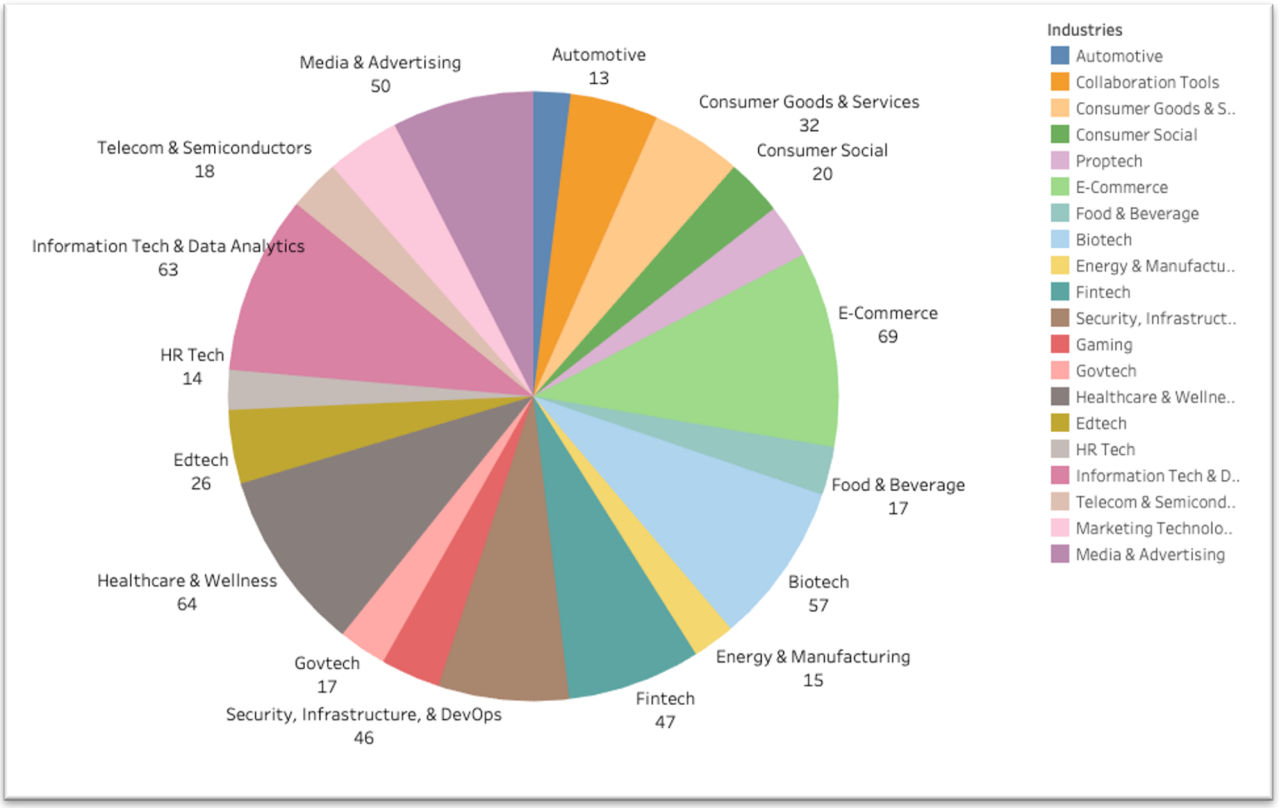


Figure 6. 7C: Number of Companies by Top U.S. Cities

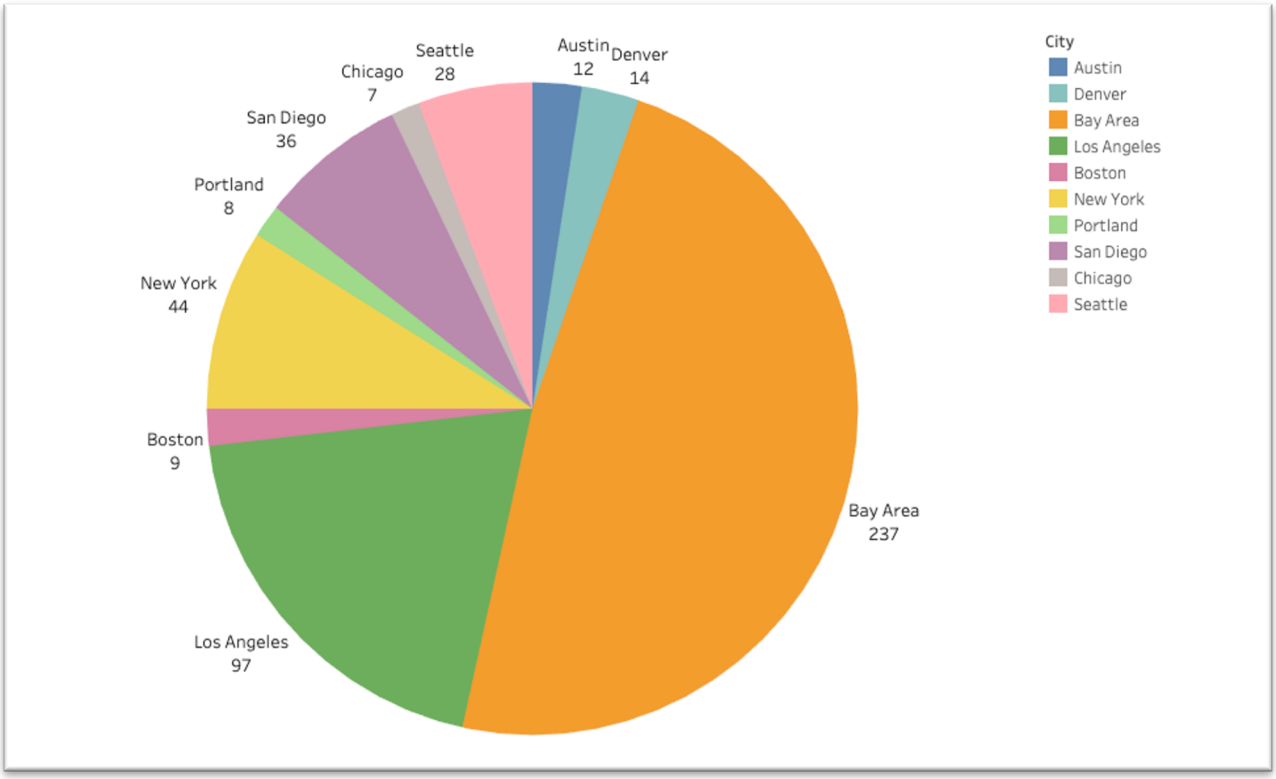
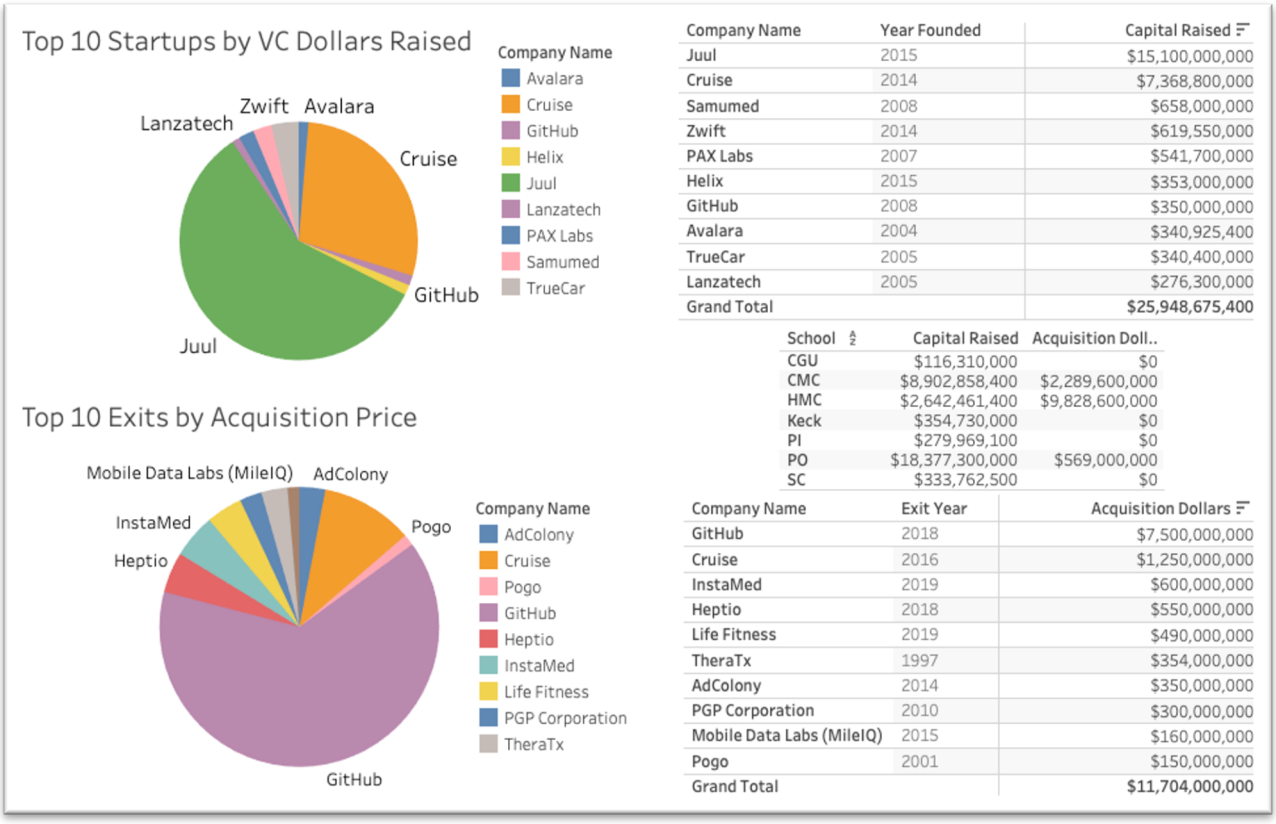


Figure 7. 7C: Top 10 Companies by Capital Raised and Exit Dollars



Company Name	Year Founded	Capital Raised
Juul	2015	$15,100,000,000
Cruise	2014	$7,368,800,000
Samumed	2008	$658,000,000
Zwift	2014	$619,550,000
PAX Labs	2007	$541,700,000
Helix	2015	$353,000,000
GitHub	2008	$350,000,000
Avalara	2004	$340,925,400
TrueCar	2005	$340,400,000
Lanzatech	2005	$276,300,000
Grand Total		$25,948,675,400

School	Capital Raised	Acquisition Doll..
CGU	$116,310,000	$0
CMC	$8,902,858,400	$2,289,600,000
HMC	$2,642,461,400	$9,828,600,000
Keck	$354,730,000	$0
PI	$279,969,100	$0
PO	$18,377,300,000	$569,000,000
SC	$333,762,500	$0

Company Name	Exit Year	Acquisition Dollars
GitHub	2018	$7,500,000,000
Cruise	2016	$1,250,000,000
InstaMed	2019	$600,000,000
Heptio	2018	$550,000,000
Life Fitness	2019	$490,000,000
TheraTx	1997	$354,000,000
AdColony	2014	$350,000,000
PGP Corporation	2010	$300,000,000
Mobile Data Labs (MileIQ)	2015	$160,000,000
Pogo	2001	$150,000,000
Grand Total		$11,704,000,000

Figure 8. CMC: Total Companies Founded by Year

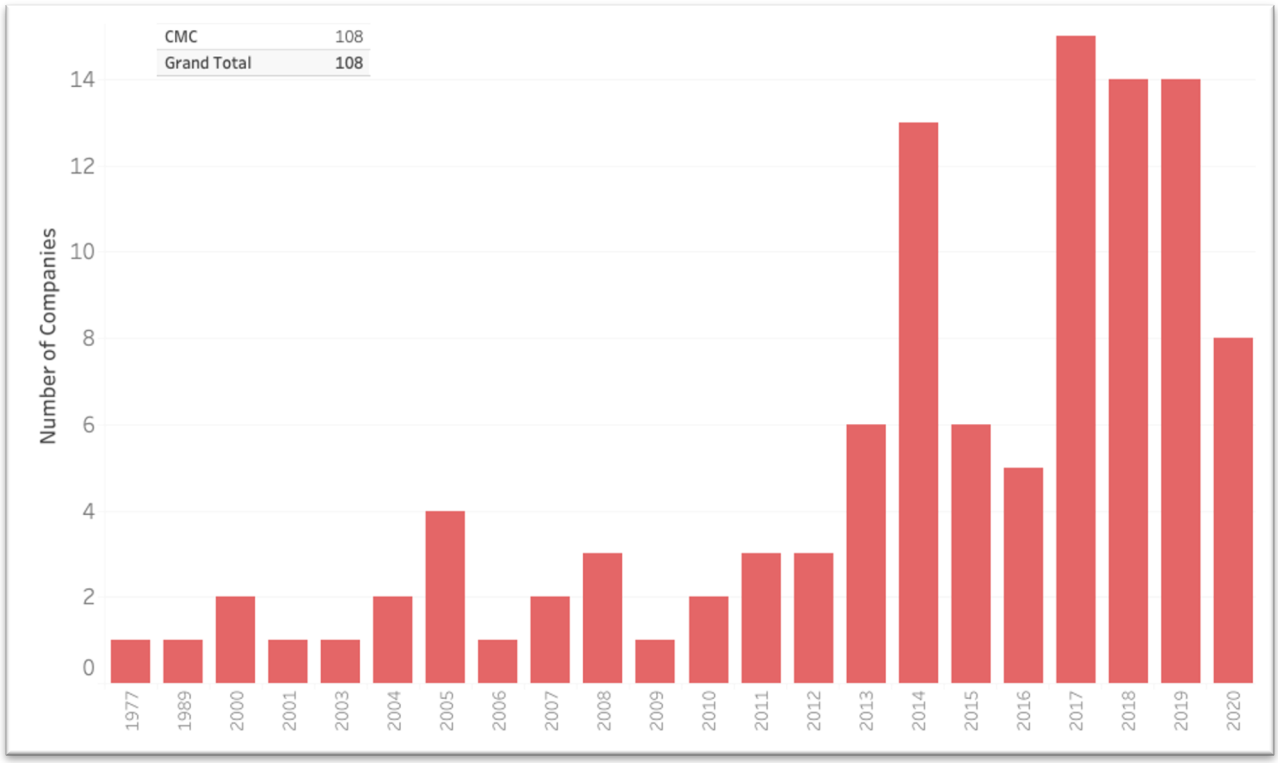


Figure 9. CMC: Number of Companies by Industry & City

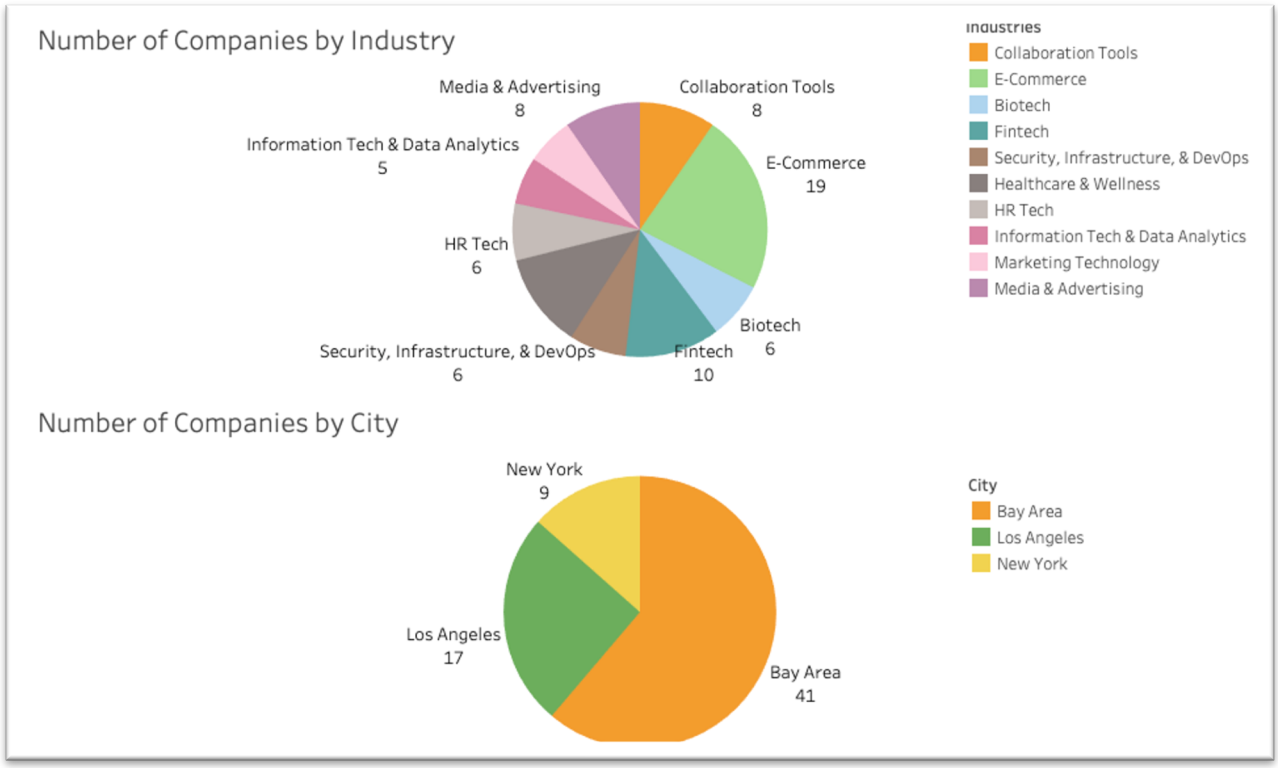
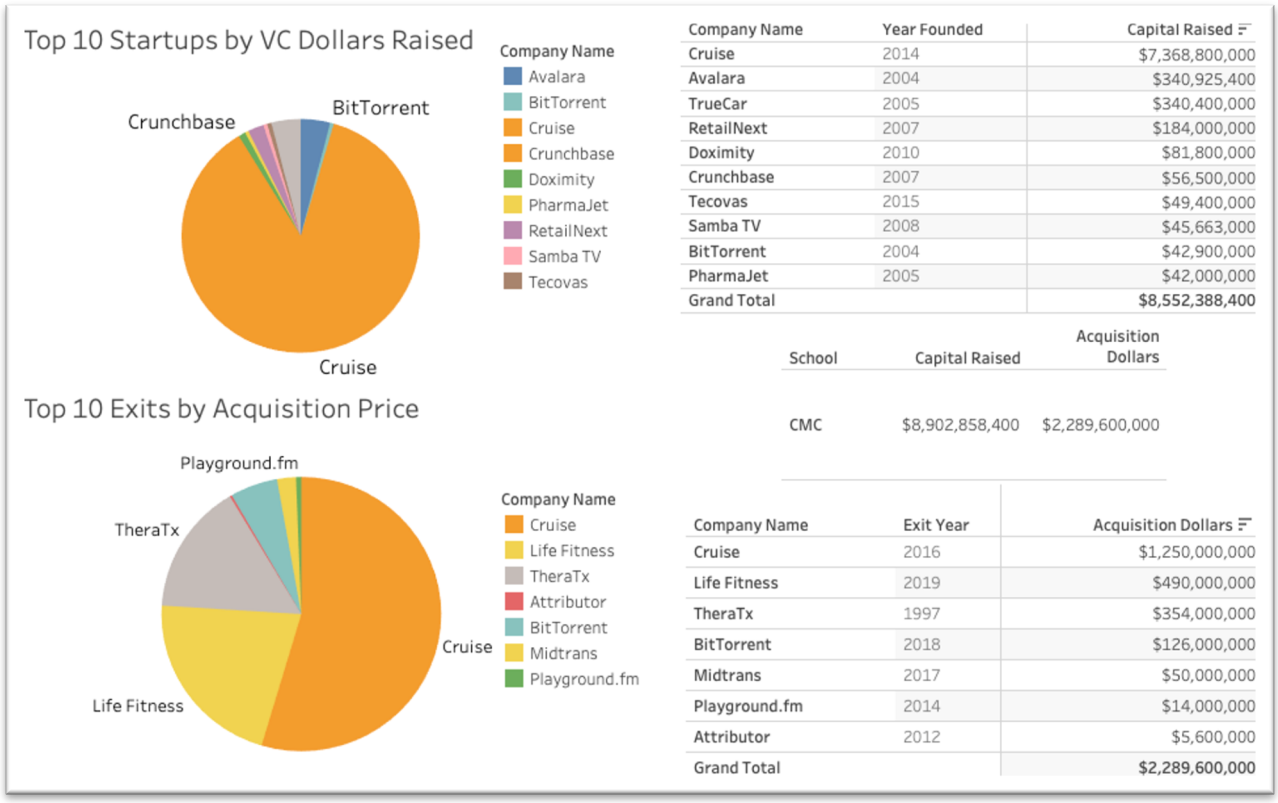


Figure 10. CMC: Top 10 Companies by Capital Raised and Exit Dollars



Company Name	Year Founded	Capital Raised
Cruise	2014	$7,368,800,000
Avalara	2004	$340,925,400
TrueCar	2005	$340,400,000
RetailNext	2007	$184,000,000
Doximity	2010	$81,800,000
Crunchbase	2007	$56,500,000
Tecovas	2015	$49,400,000
Samba TV	2008	$45,663,000
BitTorrent	2004	$42,900,000
PharmaJet	2005	$42,000,000
Grand Total		$8,552,388,400

School	Capital Raised	Acquisition Dollars
CMC	$8,902,858,400	$2,289,600,000

Company Name	Exit Year	Acquisition Dollars
Cruise	2016	$1,250,000,000
Life Fitness	2019	$490,000,000
TheraTx	1997	$354,000,000
BitTorrent	2018	$126,000,000
Midtrans	2017	$50,000,000
Playground.fm	2014	$14,000,000
Attributor	2012	$5,600,000
Grand Total		$2,289,600,000

Figure 11. HMC: Total Companies Founded by Year

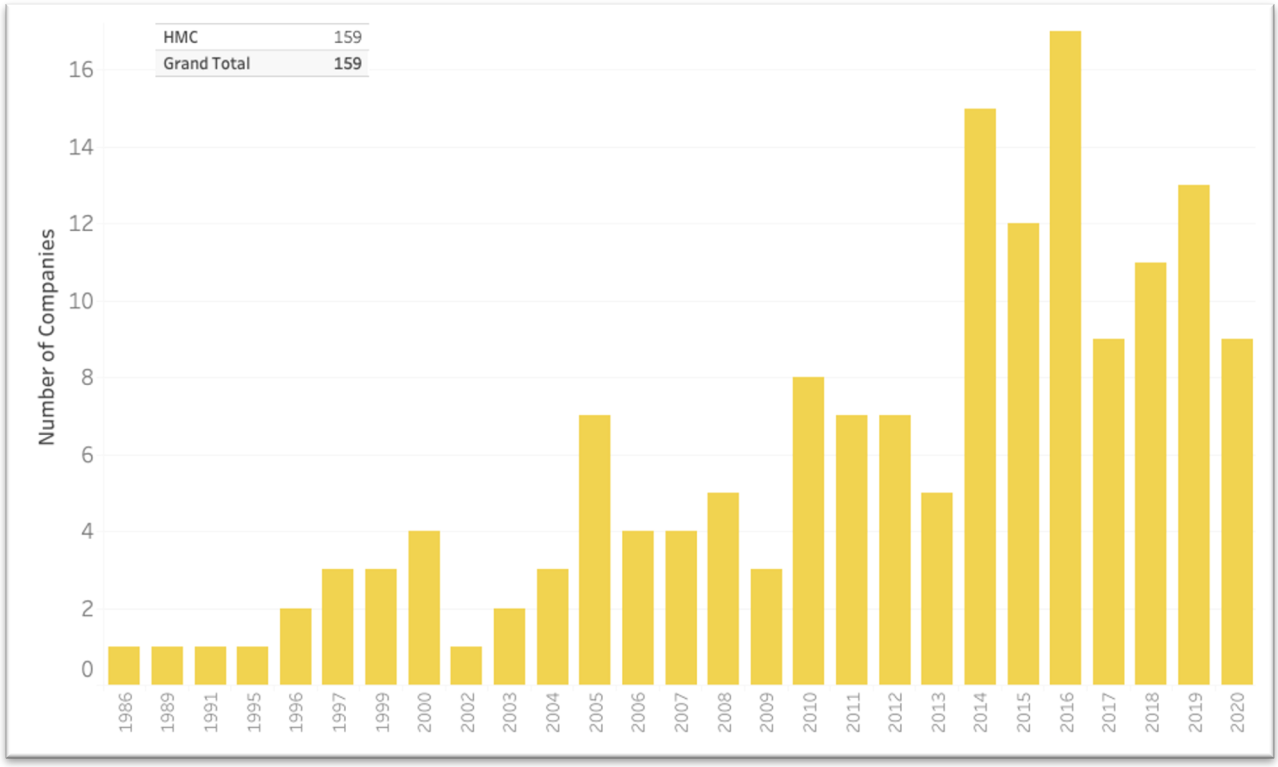


Figure 12. HMC: Number of Companies by Industry & City

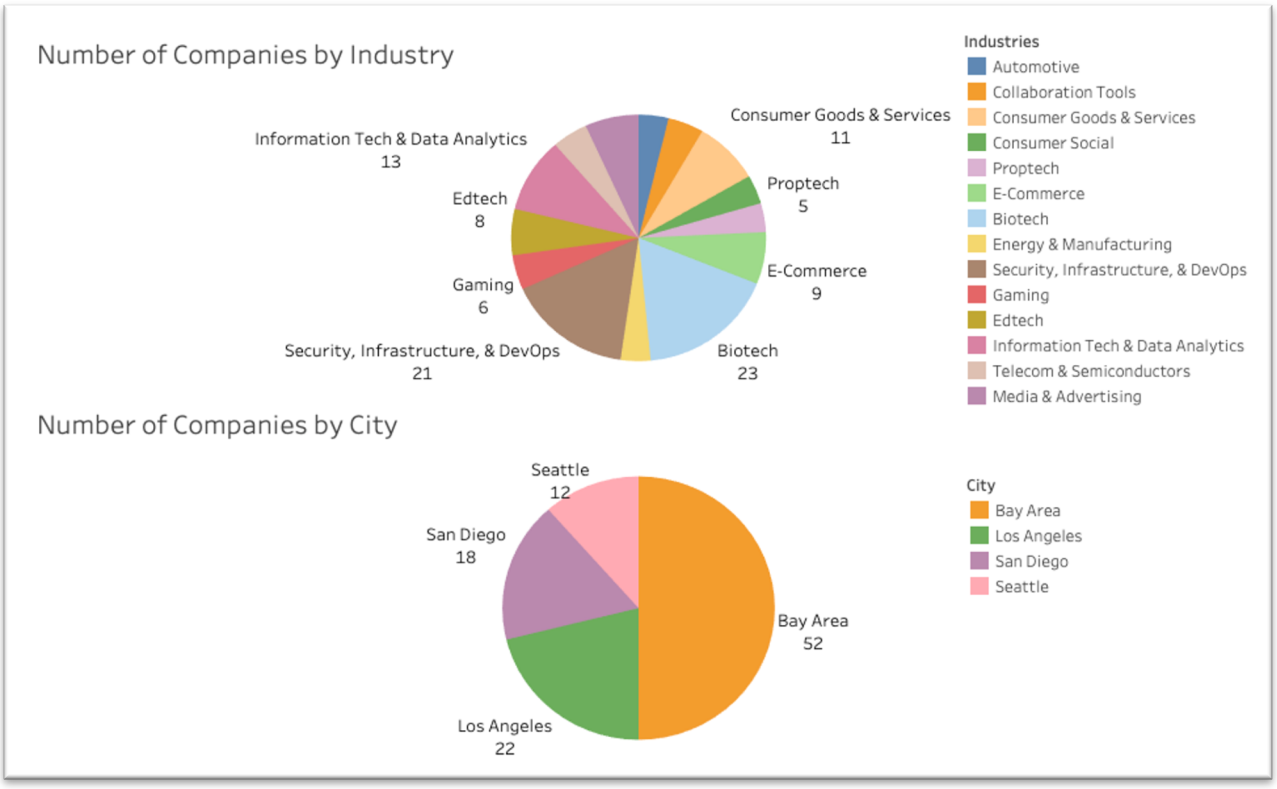
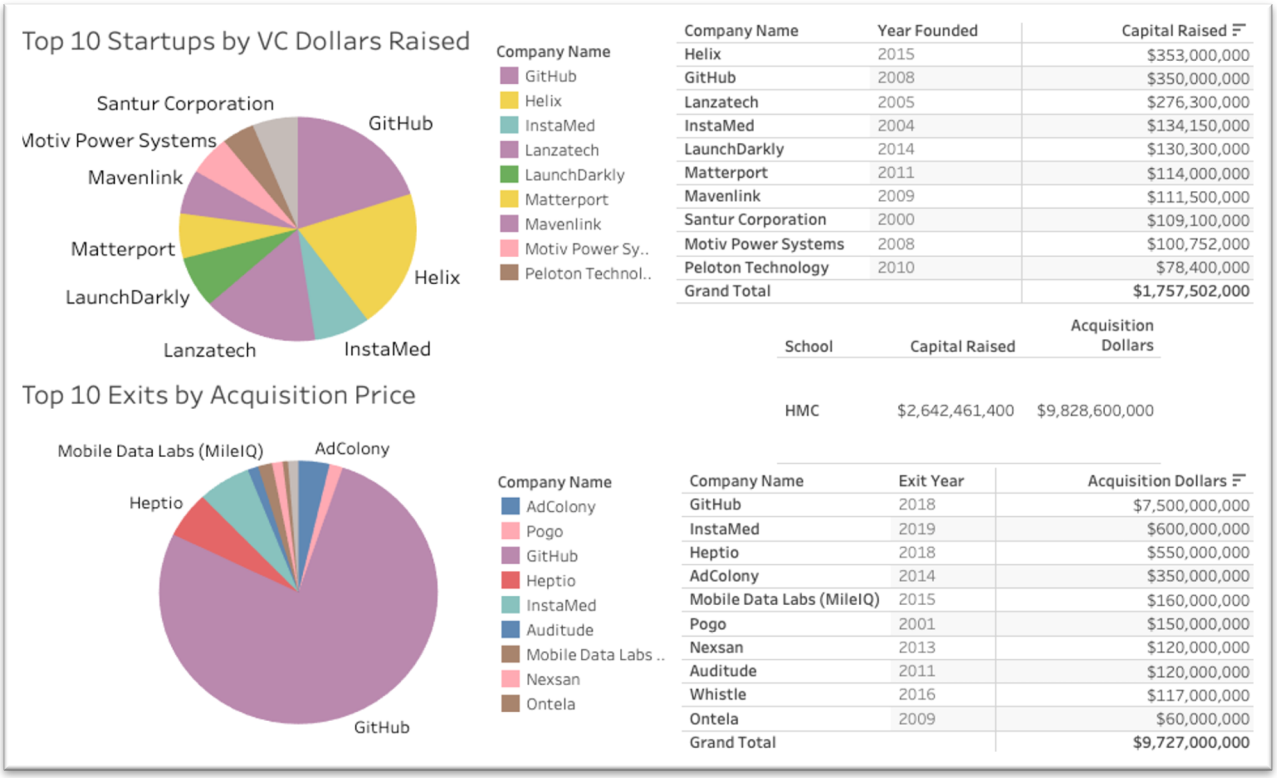


Figure 13. HMC: Top 10 Companies by Capital Raised and Exit Dollars



Company Name	Year Founded	Capital Raised
Helix	2015	$353,000,000
GitHub	2008	$350,000,000
Lanzatech	2005	$276,300,000
InstaMed	2004	$134,150,000
LaunchDarkly	2014	$130,300,000
Matterport	2011	$114,000,000
Mavenlink	2009	$111,500,000
Santur Corporation	2000	$109,100,000
Motiv Power Systems	2008	$100,752,000
Peloton Technology	2010	$78,400,000
Grand Total		$1,757,502,000

School	Capital Raised	Acquisition Dollars
HMC	$2,642,461,400	$9,828,600,000

Company Name	Exit Year	Acquisition Dollars
GitHub	2018	$7,500,000,000
InstaMed	2019	$600,000,000
Heptio	2018	$550,000,000
AdColony	2014	$350,000,000
Mobile Data Labs (MileIQ)	2015	$160,000,000
Pogo	2001	$150,000,000
Nexsan	2013	$120,000,000
Auditude	2011	$120,000,000
Whistle	2016	$117,000,000
Ontela	2009	$60,000,000
Grand Total		$9,727,000,000

Figure 14. PO: Total Companies Founded by Year

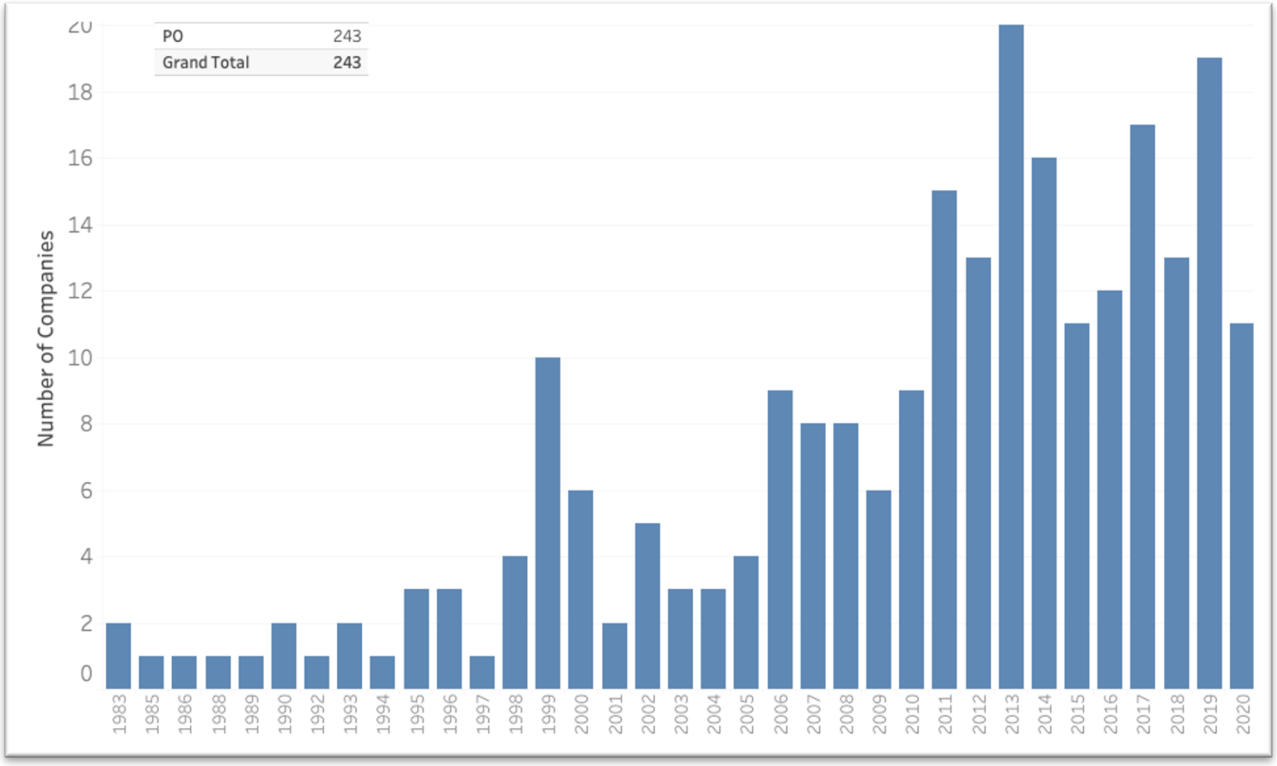


Figure 15. PO: Number of Companies by Industry & City

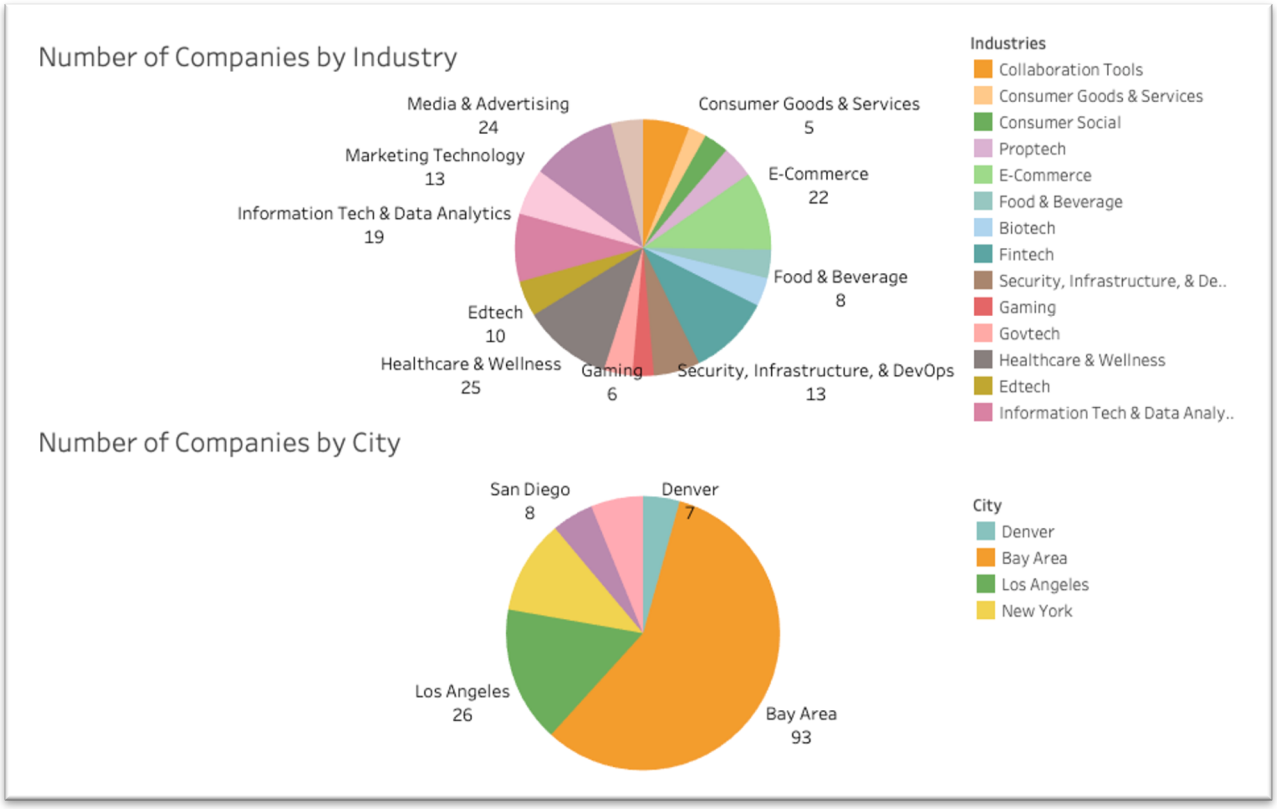
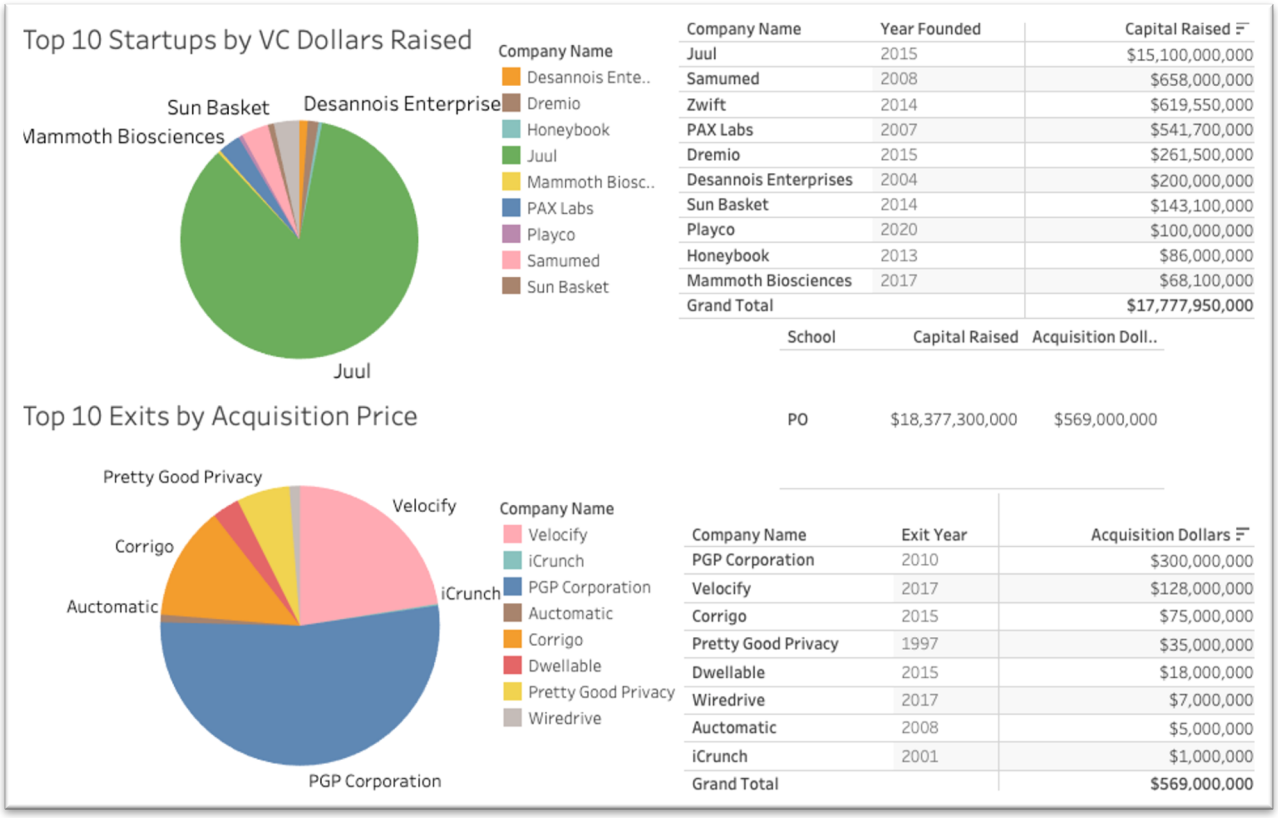


Figure 16. PO: Top 10 Companies by Capital Raised and Exit Dollars



Company Name	Year Founded	Capital Raised
Juul	2015	$15,100,000,000
Samumed	2008	$658,000,000
Zwift	2014	$619,550,000
PAX Labs	2007	$541,700,000
Dremio	2015	$261,500,000
Desannois Enterprises	2004	$200,000,000
Sun Basket	2014	$143,100,000
Playco	2020	$100,000,000
Honeybook	2013	$86,000,000
Mammoth Biosciences	2017	$68,100,000
Grand Total		$17,777,950,000

School	Capital Raised	Acquisition Doll..
PO	$18,377,300,000	$569,000,000

Company Name	Exit Year	Acquisition Dollars
PGP Corporation	2010	$300,000,000
Velocify	2017	$128,000,000
Corrigo	2015	$75,000,000
Pretty Good Privacy	1997	$35,000,000
Dwellable	2015	$18,000,000
Wiredrive	2017	$7,000,000
Auctomatic	2008	$5,000,000
iCrunch	2001	$1,000,000
Grand Total		$569,000,000

Figure 17. PI/SC: Total Companies Founded by Year

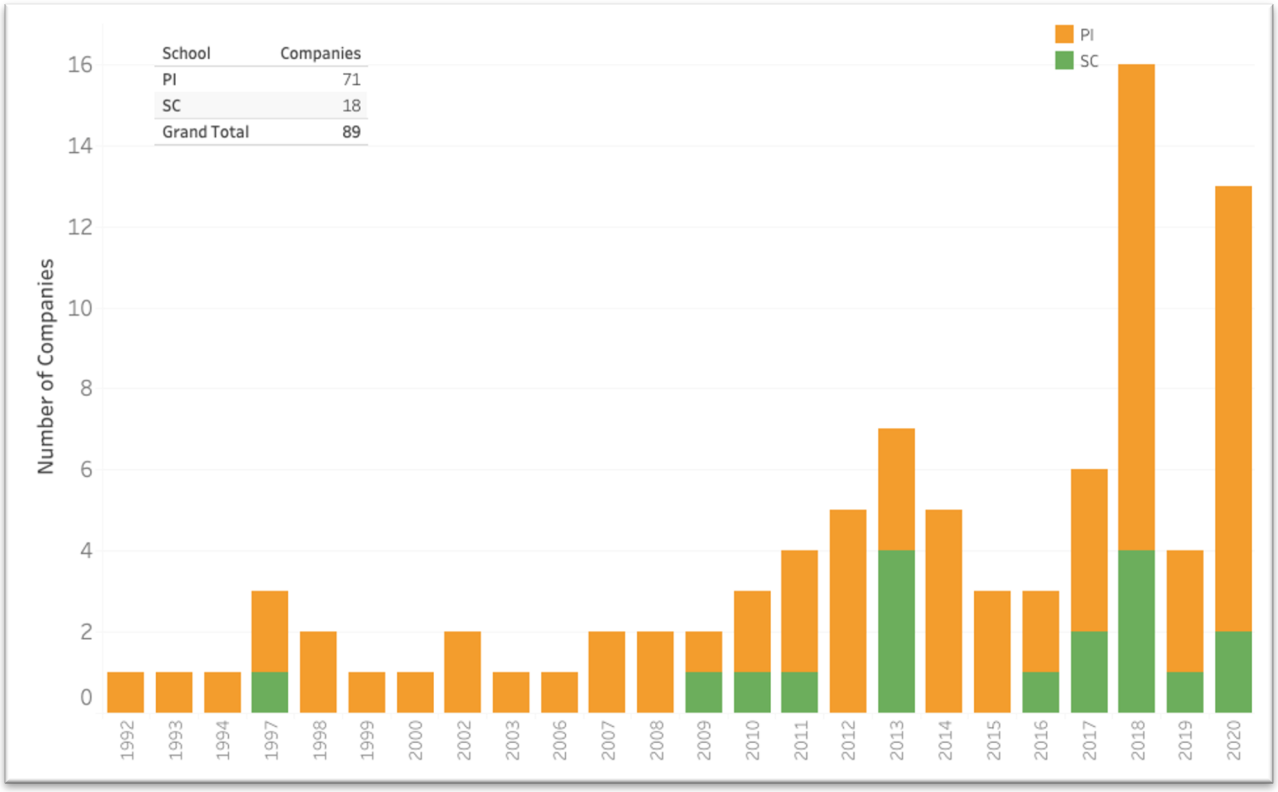


Figure 18. PI/SC: Number of Companies by Industry & City

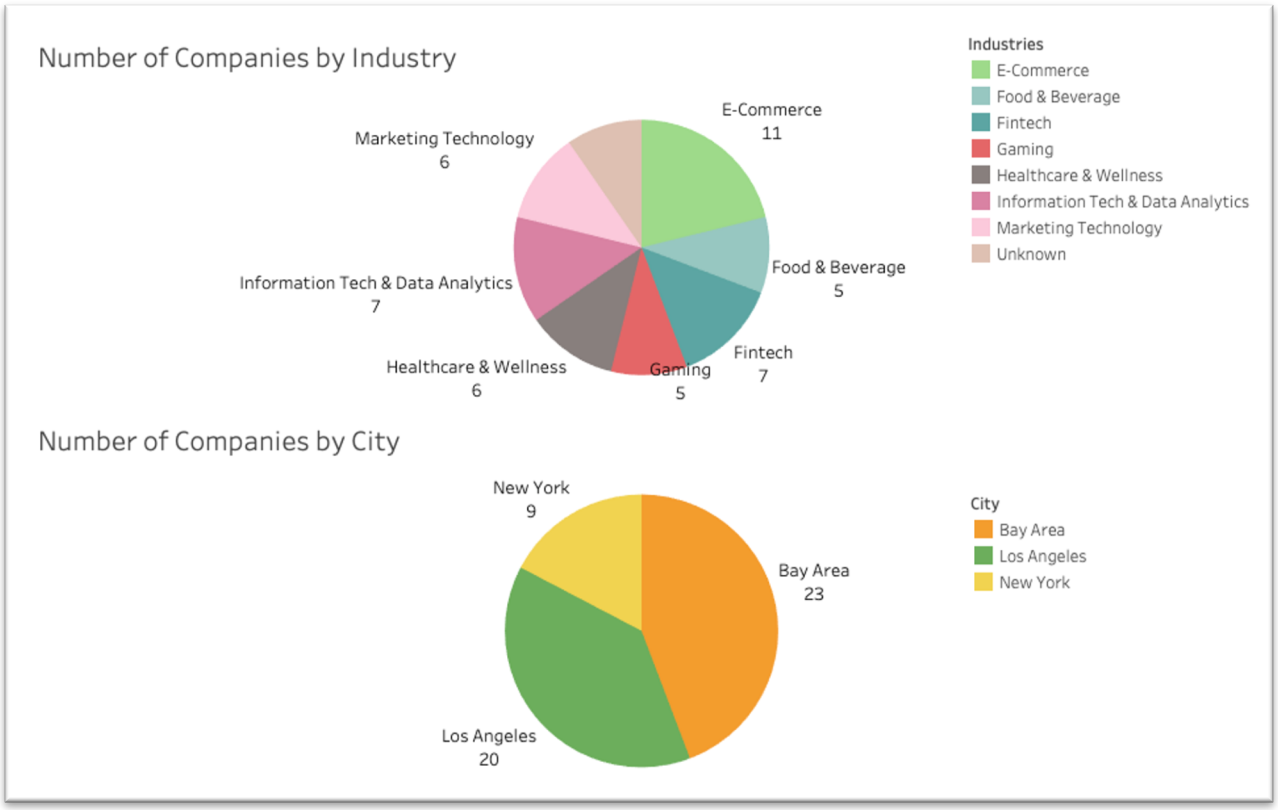
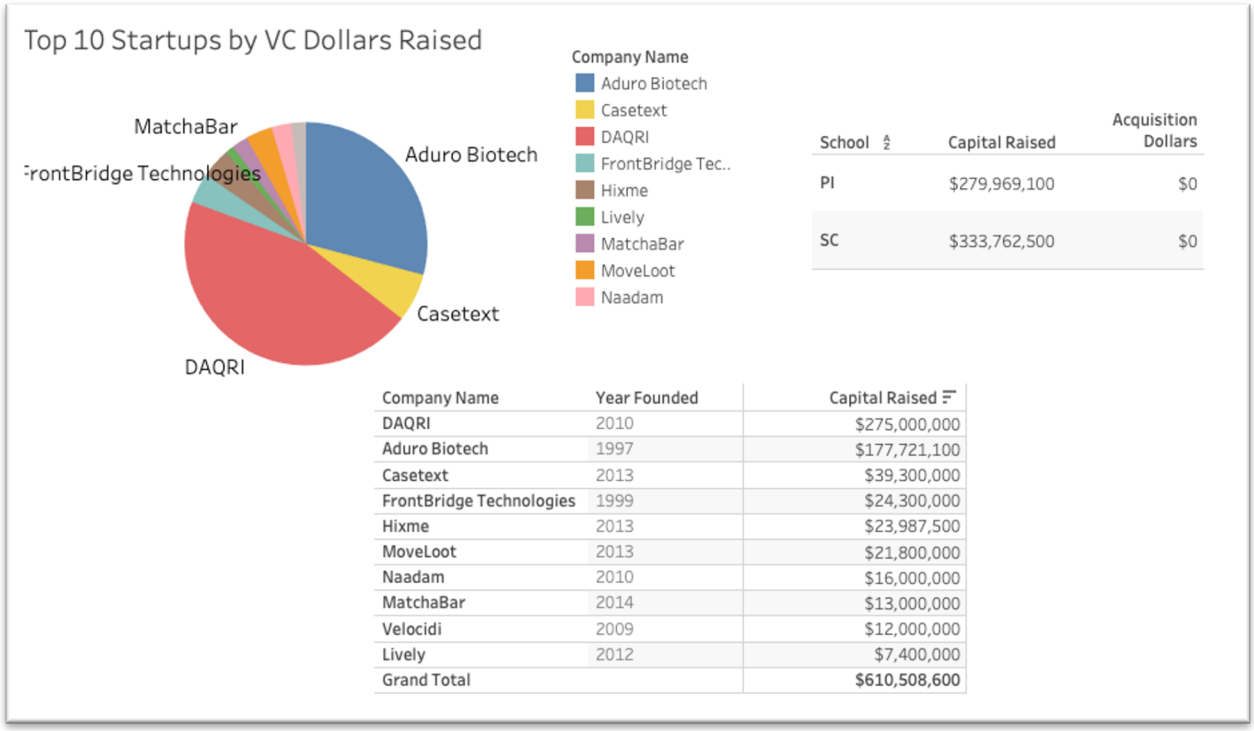


Figure 19. PI/SC: Top 10 Companies by Capital Raised



School	Capital Raised	Acquisition Dollars
PI	$279,969,100	$0
SC	$333,762,500	$0

Company Name	Year Founded	Capital Raised
DAQRI	2010	$275,000,000
Aduro Biotech	1997	$177,721,100
Casetext	2013	$39,300,000
FrontBridge Technologies	1999	$24,300,000
Hixme	2013	$23,987,500
MoveLoot	2013	$21,800,000
Naadam	2010	$16,000,000
MatchaBar	2014	$13,000,000
Velocidi	2009	$12,000,000
Lively	2012	$7,400,000
Grand Total		$610,508,600

Figure 20. Keck/CGU: Total Companies Founded by Year

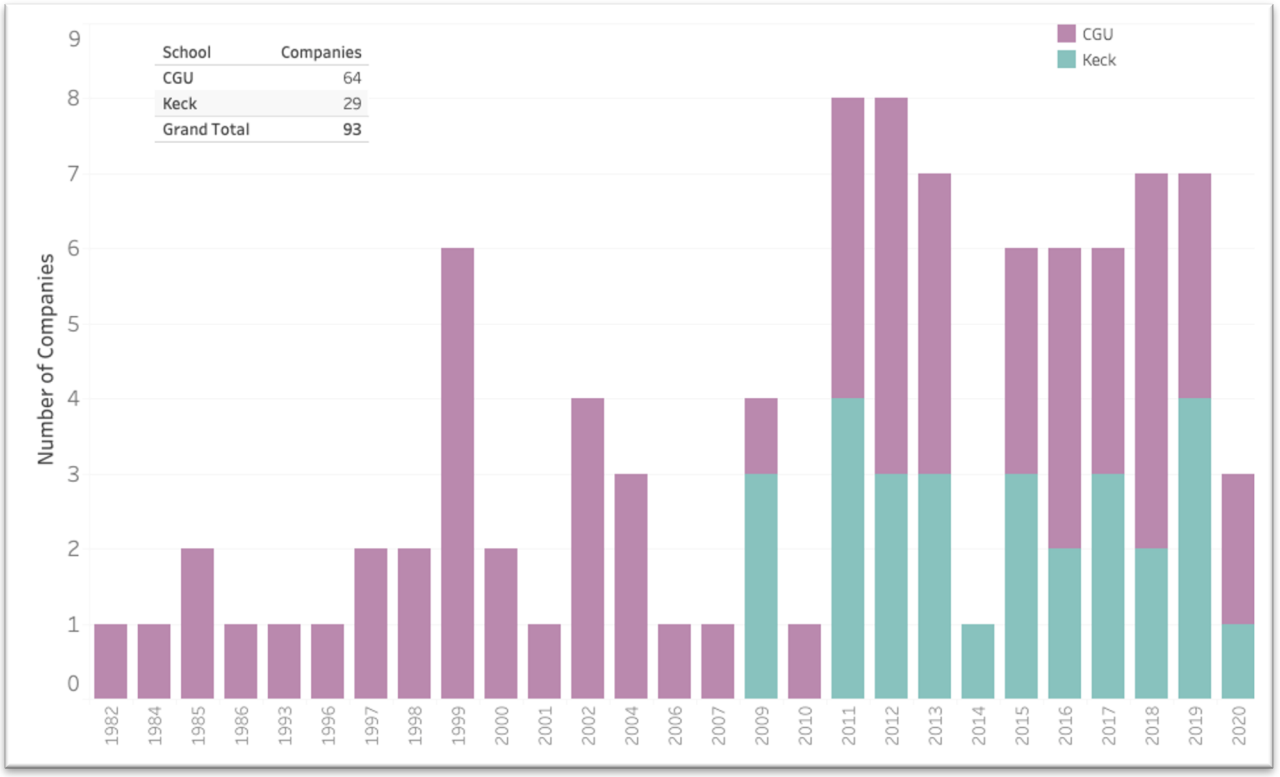


Figure 21. Keck/CGU: Number of Companies by Industry & City

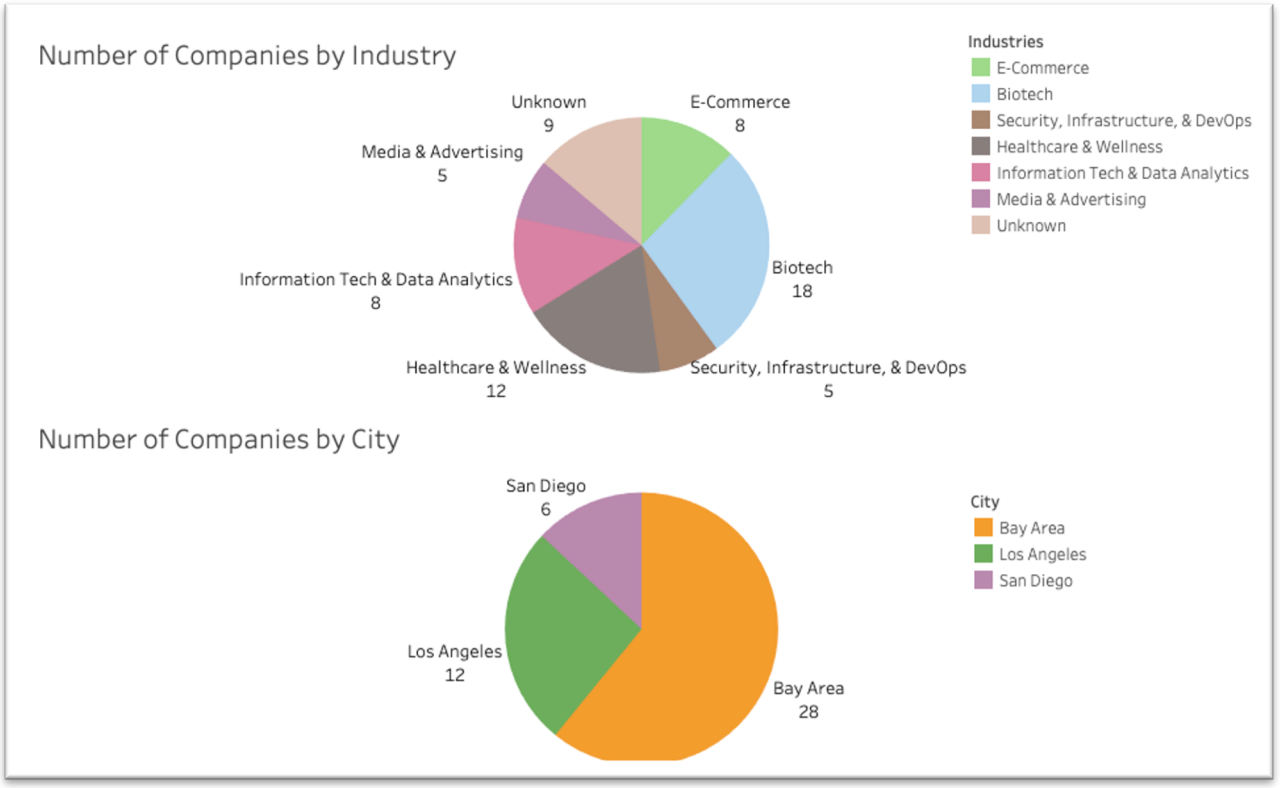
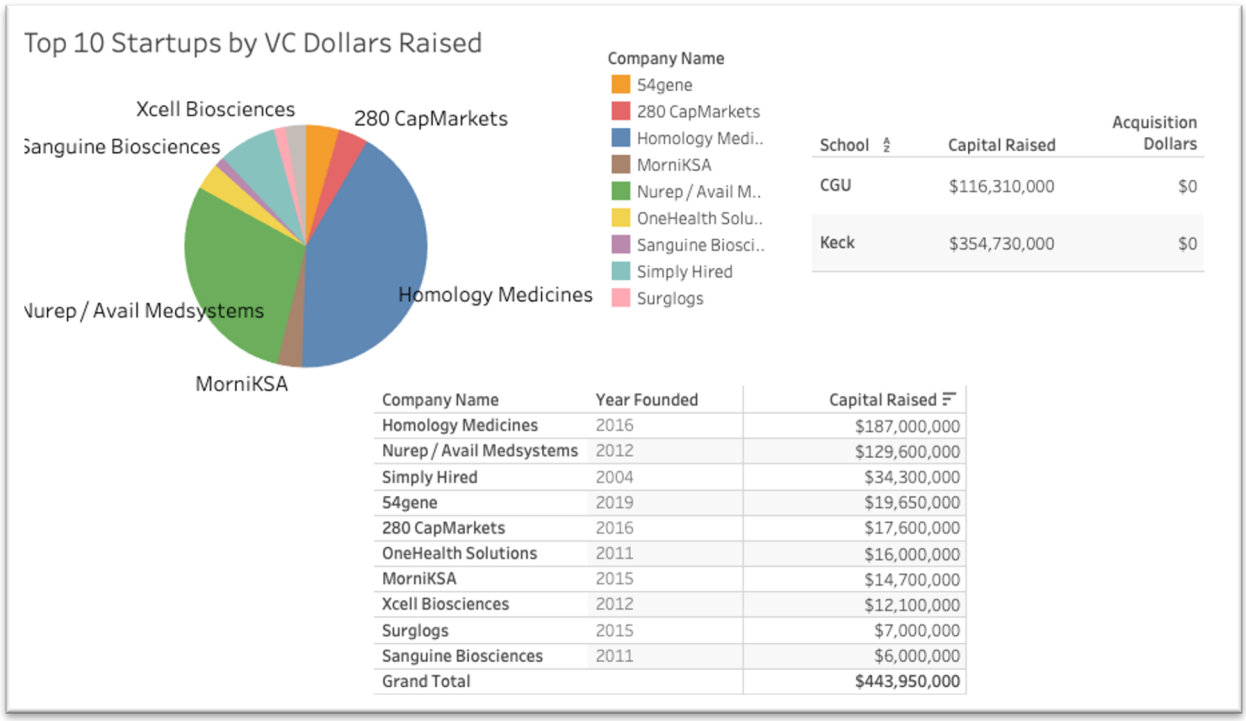


Figure 22. Keck/CGU: Top 10 Companies by Capital Raised



School	Capital Raised	Acquisition Dollars
CGU	$116,310,000	$0
Keck	$354,730,000	$0

Company Name	Year Founded	Capital Raised
Homology Medicines	2016	$187,000,000
Nurep / Avail Medsystems	2012	$129,600,000
Simply Hired	2004	$34,300,000
54gene	2019	$19,650,000
280 CapMarkets	2016	$17,600,000
OneHealth Solutions	2011	$16,000,000
MorniKSA	2015	$14,700,000
Xcell Biosciences	2012	$12,100,000
Surglogs	2015	$7,000,000
Sanguine Biosciences	2011	$6,000,000
Grand Total		$443,950,000

IX. Appendixes

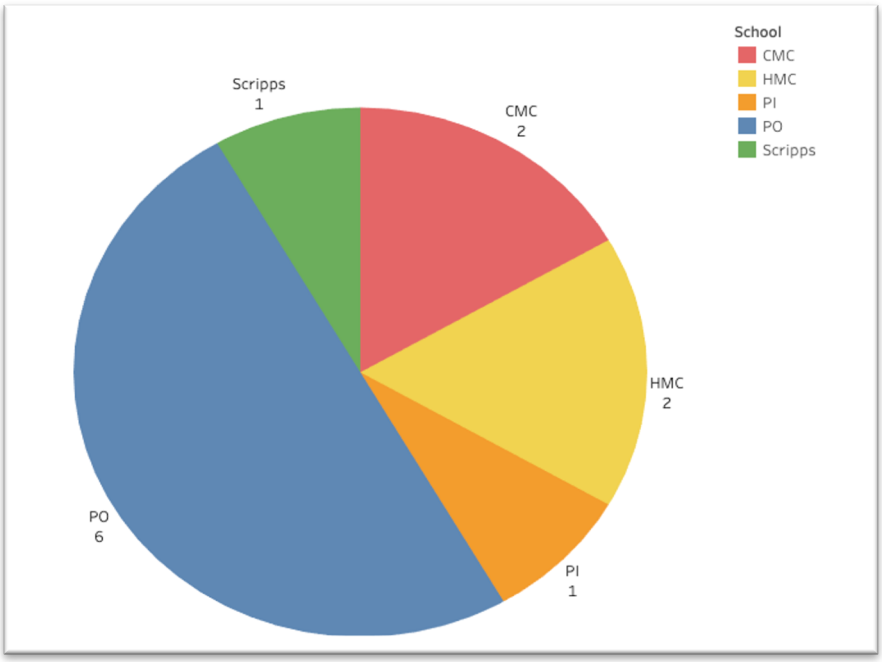
Appendix A. List of Variables and Descriptions

Variable Name	Description	Source
Company Name	*The company name of the 7C founded startup*	LinkedIn
Company Description	*The company written description*	LinkedIn
Founder Name	*The name of the 7C founder*	LinkedIn
School	*The 7C college that the founder attended*	LinkedIn
Industry	*The sector and industry tags*	Crunchbase
City	*The city the company is in*	LinkedIn
State	*The state the company is in*	LinkedIn
Region	*The U.S. locational region that the company is in or the country the company is in if outside the U.S,*	LinkedIn
Date Founded	*The official start date of the company*	LinkedIn
Status	*Whether the company is private, public, acquired, or closed*	Crunchbase
Year Founded	*The year the company was founded in*	LinkedIn
Year Closed	*The year the company closed if they did*	LinkedIn
Latest Financing	*The latest round of financing that the company finished*	Crunchbase
Funding Rounds	*How many, if any, rounds of funding the company went through*	Crunchbase
Total Capital Raised	*Dollar amount of venture capital funds that the company has raised*	Crunchbase
Year of First Funding	*The year that the company first received funding*	Crunchbase
Exit Dollars	*The dollars amount that the company got acquired for or IPO'd for if they did*	Crunchbase

Acquirer	*The name of the acquiring company if any*	Crunchbase
Exit Date	*The date the company got acquired or IPO'd*	LinkedIn, Crunchbase
Employees	*The number of employees at the company*	LinkedIn
7C Employees	*The number of 7C employees at the company*	LinkedIn
Revenue	*The company's average revenue from the range listed*	Crunchbase
Long Description	*The company description from Crunchbase*	Crunchbase
First Funding Date	*The date the first amount of funding was received*	Crunchbase
SF	*If the company was founded by a student*	LinkedIn
FF	*If the company was founded by a female*	LinkedIn
Software	*If the company is classified as a software company*	Crunchbase
Hardware	*If the company is classified as a hardware company*	Crunchbase
Serial Founder	*If the company's founder has started multiple companies who have raised venture funds*	Calculation
Unicorn	*If the company is private and has an estimated valuation of at least $1B*	Crunchbase
Undergrad Major	*The founder's undergrad major if listed*	LinkedIn
Grad School	*Whether or not the founder went to grad school*	LinkedIn
Grad Degree 1 & 2	*The founder's grad level degrees if any*	LinkedIn
Money Raised at IPO	*The amount of money the company raised at IPO*	Crunchbase
Evaluation at time of IPO	*The estimated value of the company at IPO*	Crunchbase
Current Market Value of Public Company	*The current market value of a public company*	Crunchbase
Venture Dollars	*A dummy variable if the company acquired any venture capital*	Calculation

5 Years Alive	*A dummy variable if the company stayed open for at least five years*	Calculation

Appendix B. 7C: Historical Unicorns



Appendix C. 7C: Historic IPOs, $100M Acquisitions, & Unicorn Events by Year